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COMMONWEALTH OF VIRGINIA

VIRGINIA DEPARTMENT OF LABOR AND INDUSTRY

ANNUAL REPORT

FOR YEAR 1980

Robert F. Beard, Jr., Commissioner
DEPARTMENT OF LABOR AND INDUSTRY
Richmond, Virginia

Eighty-third Annual Report

CALENDAR YEAR ENDING DECEMBER 31, 1930

DEPARTMENT OF LABOR AND INDUSTRY

Robert F. Beard, Jr. . . . . Commissioner

Clayton P. Deane . . . . . Assistant Commissioner

John E. Plummer . . . . . Chief Administrator of Occupational Safety

Divisions of the Department

Division of Apprenticeship Training
Robert S. Baumgardner, Director

Division of Boiler and Pressure Vessel Safety
Vernon E. Doss, Chief

Division of Construction Safety
Charles G. Wicker, Director

Division of Field Office Services
Administration

Division of Industrial Safety
Elliott A. Scruggs, Director

Division of Mines and Quarries
McLynn Sharpe, Chief

Division of Voluntary Compliance and Training
Michael Rodgers, Director

Division of Research and Statistics
Texa B. Thurston, Director

Division of State Labor Law Administration
William K. Turpin, Director

Commonwealth of Virginia

DEPARTMENT OF LABOR AND INDUSTRY
205 North Fourth Street
P. O. Box 12064
Richmond, Virginia 23241
804-786-2376

ROBERT F. BEARD, JR.
COMMISSIONER

CLAYTON P. DEANE
ASSISTANT COMMISSIONER

June 30, 1981

Honorable John N. Dalton

Governor of Virginia

Richmond, Virginia

Dear Governor Dalton:

Pursuant to the law creating the Department of Labor and Industry, as amended by Acts of Assembly, 1927, Chapter 33, I have the honor to submit herewith the eighty-third Annual Report of the Department for the calendar year ending December 31, 1980.

Respectfully submitted,

Robert F. Beard, Jr.

Robert F. Beard, Jr.

Commissioner

RFB,Jr/csj

VIRGINIA DEPARTMENT OF LABOR AND INDUSTRY

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ORGANIZATION AND FUNCTIONS OF THE DEPARTMENT

The Department of Labor and Industry, originally known as the Bureau of Labor and Industrial Statistics, was created by Act of the Legislature in 1898. With the enactment of the Reorganization Act of 1927, it was given the status of a regular administrative agency of the State Government and its name changed to the Department of Labor and Industry. (Section 40-1, Code of Virginia, 1950, as amended, 1958, 1962, 1964, 1966, and 1970).

By the Act creating the Department of Labor and Industry, the Commissioner of Labor and Industry and his assistants are specifically charged with the following general duties:

1. To compile and publish statistics concerning labor and industry in the State and to report in writing to the Governor annually concerning the work of the Department with such other information and with such recommendations as the Commissioner may deem proper.

2. To visit and inspect all business establishments, excavations, demolitions and construction sites, as defined in Title 40.1 and 45.1 of the Code of Virginia, where goods, wares and merchandise are manufactured, purchased and sold, at wholesale or retail, and to secure the enforcement of all laws, rules and regulations relating to the inspection of aforementioned establishments and to prosecute all violations thereof.

3. The Commissioner shall have power to take and preserve testimony, examine witnesses, administer oaths and, under proper restriction, enter any public institution of the State, any business establishment, mine or quarry, as defined in Title 40.1 and 45.1 of the Code of Virginia and interrogate any person employed therein or connected therewith or the proper officer of a corporation, or file a written or printed list of interrogatories and require full and complete answers to the same to be returned under oath within thirty (30) days of the receipt of such list of questions.

4. The Commissioner is responsible for the formulation of policies and the general supervision of all activities of the Department. He shall have the authority to appoint such assistants as may be necessary to carry out the objects and purposes of this Department. This office, through the press, radio, conferences and other means of dissemination of information, keeps employers, workers, and the public informed of the labor laws, the general activities of the Department, and the need for legislation for improving conditions of work in industry. The Commissioner is also an ex-officio member of the Virginia Apprenticeship Council and the Safety and Health Codes Commission.

5. The Commissioner is charged by statute with the duty of mediating and conciliating labor disputes affecting certain public utilities. The Commissioner also, personally, and through the Department's personnel, attempts to maintain satisfactory and peaceful relations between employers and employees; and while he is not charged with the responsibility by statute to mediate disputes, other than those affecting certain public utilities, the services of his office have been rendered to many employers and employees, who have requested the services of the Department to assist them in reaching a mutual agreement of their differences in a labor dispute.

6. The 1962 General Assembly of Virginia provided for the establishment of a Safety Codes Commission to be appointed by the Governor which was composed of five members. The 1970 General Assembly of Virginia increased the size of the Safety Codes Commission by two additional members to be appointed by the Governor. In 1972, legislation enacted by the General Assembly of Virginia changed the name from Safety Codes Commission to Safety and Health Codes Commission and provided for the Commissioner of Health to be an ex-officio member. The Commission shall study and investigate all phases of safety in business establishments applicable to Title 40.1 and Title 45.1 of the Code of Virginia.

7. The 1970 General Assembly of Virginia recodified Title 40 to Title 40.1 and Title 45 to Title 45.1.

VIRGINIA PUBLIC UTILITY LABOR RELATIONS ACT

The Virginia Public Utility Labor Relations Act, as amended by the General Assembly, effective April 7, 1952, designates the Department of Labor and Industry as the State agency established to mediate and conciliate labor disputes. It requires notices of disputes between certain public utilities and their employees and imposes upon the Commissioner of Labor and Industry, or his designated agent, certain duties in connection therewith relating to labor disputes affecting the operation of certain public utilities.

The Act provides that the utility or the collective bargaining agent, recognized by the utility and its employees, shall not terminate or modify such contract until the party desiring such termination or modification serves written notice upon the Department of Labor and Industry of the proposed termination or modification at least thirty (30) days prior to the expiration date thereof or in the event such contract contains no expiration date, at least thirty (30) days prior to the date it is proposed to make such termination or modification. Where there is no collective bargaining contract in effect, the same procedure shall be followed by the utility and its employees or designated representatives or any labor organization or association attempting to organize employees in work affecting the utility.

Upon receipt of any such notices, the Commissioner of Labor and Industry is charged with the responsibility of notifying the Governor and informing him of the nature of the dispute. If the Governor deems it necessary, the Commissioner, or his designated agent, shall offer to meet and confer with the parties in interest and undertake to mediate and conciliate their differences to the extent of the mediation and conciliation by State agencies contemplated by the National Labor Relations Act or similar Federal legislation. In the event Federal legislation does not apply and if the Governor deems it advisable, it shall be the duty of the utility and its employees, or designated representative, to meet and confer with the Commissioner, or his agent, at a time and place designated by the Commissioner for mediating and conciliating their differences.

The Commissioner shall keep the Governor fully informed of negotiations between the utility and its employees and shall report as soon as practical if a strike or lockout appears to be probable in any such dispute, or if a strike or lockout begins, whether the continuation thereof is probable.

The Commissioner of Labor and Industry, or his agent, shall have the right of entry upon the property of a utility.

After all means of mediation and conciliation have been exercised under this Act and a stoppage of work is certain, the Governor, under the new Seizure Act, may, if he deems it necessary, seize and operate a public utility.

Mediation and conciliation service under the Public Utility Labor Relations Act continues even though it becomes necessary for State seizure under the Public Utility Seizure Act.

The Commissioner of Labor and Industry was not required to attend any conferences in 1980 under the amended Virginia Public Utility Labor Relations Act. Fifteen (15) notices of negotiations were received during the year 1980 and fourteen (14) were settled. One was still pending at the end of the year.

NOTICES OF NEGOTIATIONS BY TYPES GIVEN UNDER THE AMENDED VIRGINIA PUBLIC UTILITY LABOR RELATIONS ACT*

January 1, 1980 - December 31, 1980

Types of Utilities	Notices Received	Conferences Attended by Commissioner of Labor and Industry	Cases Settled
TOTAL	15	0	14
Electric Power	5	0	5
Transportation	2	0	2
Communication	5	0	4
Gas Distribution	3	0	3

* Act effective April 7, 1952

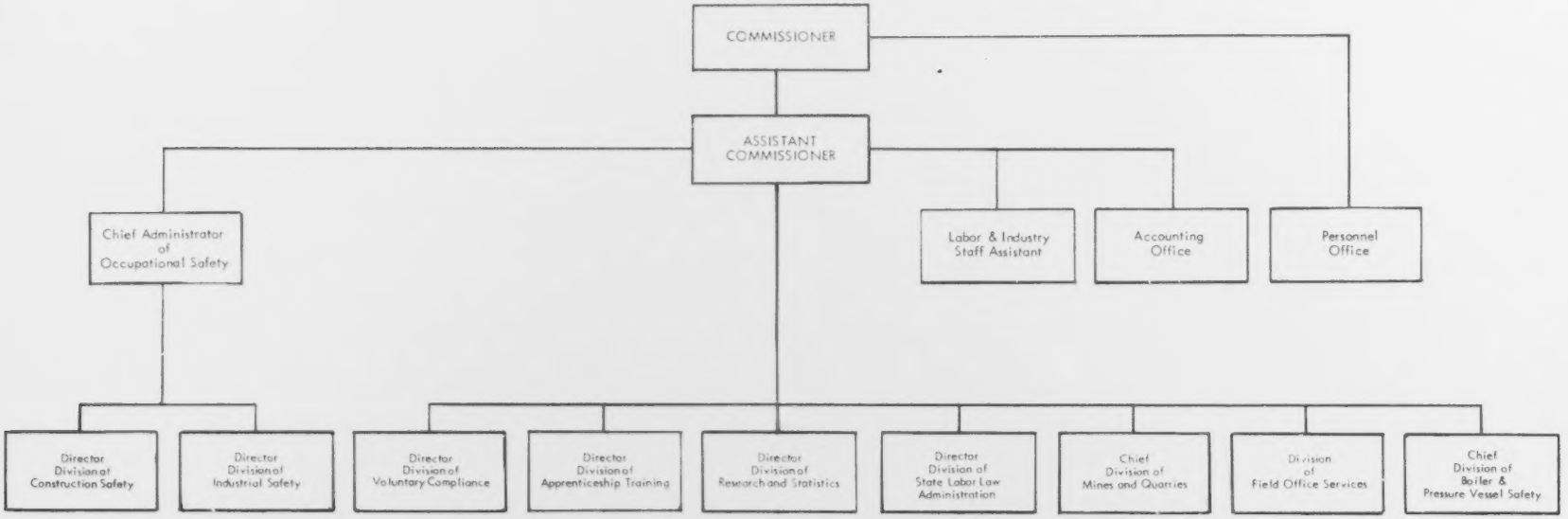
MEDIATION AND CONCILIATION OF LABOR DISPUTES AFFECTING THE OPERATION OF PUBLIC UTILITIES

The Department of Labor and Industry is designated as the State agency authorized to mediate and conciliate labor disputes affecting the operations of public utilities. The Act requires at least 30 days notice be given to the Department for termination or modification of contracts or work stoppages affecting the operation of any public utilities engaged in the business of furnishing water, light, heat, gas, electric power, transportation, or communication. Such notice is to be given by the utility or its employees. The Act provides that the Commissioner of Labor and Industry shall keep the Governor informed of such negotiations.

There were two (2) work stoppages during 1980 in the public utilities--one (1) in transportation and one (1) in communication.

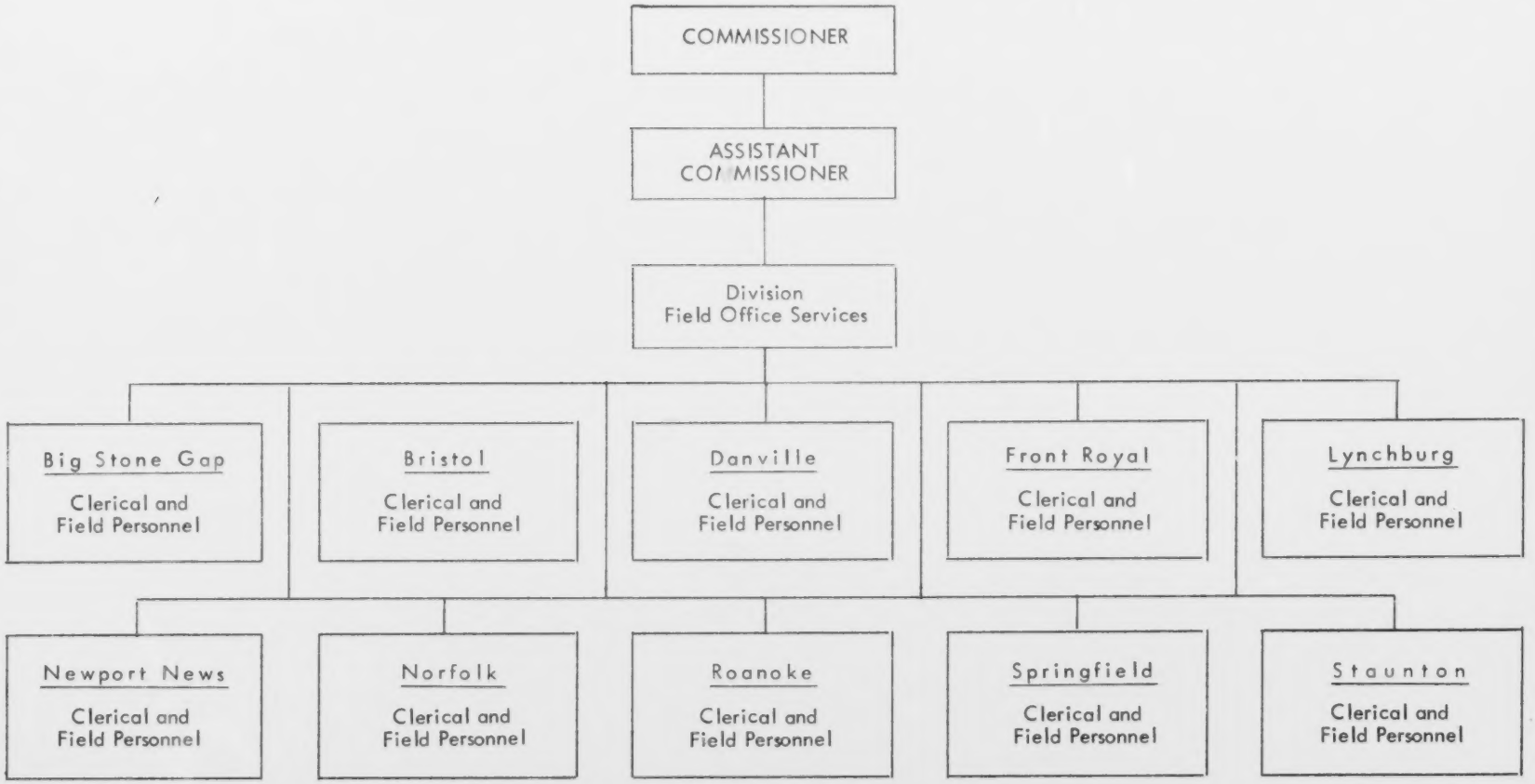
One (1) notice of negotiation was still pending at the end of the year in communication.

ORGANIZATION CHART
VIRGINIA DEPARTMENT OF LABOR AND INDUSTRY


COMMISSIONER
ASSISTANT COMMISSIONER
Chief Administrator of Occupational Safety
Labor & Industry Staff Assistant
Accounting Office
Personnel Office
Director Division of Construction Safety
Director Division of Industrial Safety
Director Division of Voluntary Compliance
Director Division of Apprenticeship Training
Director Division of Research and Statistics
Director Division of State Labor Law Administration
Chief Division of Mines and Quarries
Division of Field Office Services
Chief Division of Boiler & Pressure Vessel Safety

ORGANIZATION CHART

FIELD OFFICE SERVICES



Note: All offices will be responsible for taking and referring business calls to any representative not assigned to the office but working the area.

DIVISION OF

BOILER AND PRESSURE VESSEL SAFETY

The Division is responsible for enforcing the provisions of the Boiler and Pressure Vessel Safety Act as set forth in Chapter 3.1 of Title 40.1 of the Code of Virginia. The objective of this Law is to protect human life and property from unsafe or dangerous construction, installation, inspection, operation, maintenance and repair of boilers and pressure vessels in the State.

The inspection of boiler and pressure vessel equipment and their installations is the primary activity to attain this objective. Inspections are conducted by authorized inspection agencies. The four agencies recognized by the rules and regulations are (1) the State, (2) insurance companies registered in Virginia to write boiler and pressure vessel insurance, (3) subdivisions of the State, and (4) owner-users.

These agencies qualify and obtain Virginia commissions for their inspection personnel. The Division has commissioned 266 inspectors. These inspectors conduct inspections of equipment during fabrication; during installation; before, during and following repairs; and in service. The Act provides for the frequency and type of inspection according to the size of equipment and its service application.

A written report of each inspection conducted is submitted to the Division on forms prescribed by the rules and regulations. Based on the facts of the inspection report to assure safe operation, the Division issues, withholds, or revokes the necessary Certificate of Inspection.

Inspection activity by all known authorized inspection agencies commenced May 1, 1974. Approximately 48,500 first inspections have been completed and certificates issued. It is roughly estimated there is a minimum of 100,000 boilers and pressure vessels that will require inspection and certification under the Safety Act.

Utilizing the certifications gained from the first inspections, permanent records have been, and will continue to be, established and maintained to include: (1) name and location of owner-user; (2) identification and technical details of construction; (3) major repairs or alterations; and (4) certain operational characteristics for each boiler and pressure vessel.

The Division's Chief Inspector is a member of the National Board of Boiler and Pressure Vessel Inspectors and the American Society of Mechanical Engineers (ASME) Conference Committee. As a recognized State jurisdiction and as provided by the ASME Boiler and Pressure Vessel Codes, the Division conducts joint reviews of manufacturers' quality control systems for those plants in Virginia which manufacture or assemble boilers and pressure vessels and which request authorization to use one or more of the Code symbol stamps. The Division conducted ten such reviews. The Division also participated in one nuclear survey conducted by ASME.

Meetings with authorities of several counties and cities have been held to acquaint them with the requirements and procedures necessary to be recognized under the Act as an Authorized Inspection Agency and to solicit their active participation and cooperation. None has made formal application.

Many manufacturers/contractors throughout the State have been personally contacted to solicit their cooperation and explain the requirements of the Virginia Boiler and Pressure Vessel Safety Act relative to minimum standards of construction and installation for both new and used equipment and for repairs or alterations. Presentations

were made at various industry related technical association meetings, seminars and workshops throughout the State to inform and solicit active cooperation of industry personnel in this safety program.

During the year four examinations were conducted. Ten applicants took the examination and ten obtained Virginia Commissions.

To maintain inspection schedules as required by the Act, the need for a comprehensive training program for qualifying Deputy Inspectors became apparent in 1978. The training program that was implemented in 1978 proved functional in 1979 and is audited quarterly for any necessary revision or update in order to keep current with applicable Codes.

Rules and regulations that were adopted by the Safety and Health Codes Commission and made effective July 1, 1974, were amended and promulgated in 1978. Copies of these rules and regulations are available from the Division upon request.

There were no personal fatalities reported from failures of boilers and pressure vessels during the year.

The Division, through periodic review, will continue to improve those services required by the Boiler and Pressure Vessel Safety Act.

DIVISION OF

STATE LABOR LAW ADMINISTRATION

The Division is responsible for enforcing the provisions of the following laws: Minimum Wage, Payment of Wages, Garnishee, Child Labor, Right-to-Work, Equal Pay Irrespective of Sex, Discrimination Because of Physical Handicaps, Magazine Subscription Solicitation, Employment of Aliens, and certain other protective legislation.

A total of 5,066 inspections were made in 1980. Some were made in connection with complaint investigations, but the majority were made on a routine basis.

Complaints alleging nonpayment of wages continue to increase in number and to outnumber all others. There were 2,120 written complaints received; and upon investigation, $238,905.30 was collected on valid claims. An additional $185,946.34 was uncollectable because the employer was in bankruptcy, insolvent, or had left the State and could not be located. Economic downturns in the economy tend to reflect this increase in uncollectable due wages.

As a result of an Assistant Attorney General's interpretation rendered on October 14, 1980, Division representatives are instituting civil proceedings on behalf of employees whose wages have been unlawfully withheld. This additional enforcement policy should reflect an increase in collection of due wages. Eleven (11) civil warrants have been obtained through enaction of this policy resulting in ten (10) judgments being awarded. Only one of the cases was dismissed: the reason being the employee was paid prior to the court date. It is anticipated that civil warrants will increase appreciably in the immediate future due to this interpretation.

There were 110 complaints received, investigated, and resolved concerning the failure of employers to pay proper State Minimum Wages to employees. Eight Garnishment of Wage complaints were investigated and resolved.

Nine Right-to-Work Law complaints were investigated and resolved to the satisfaction of the affected employees.

There were four complaints received and investigated concerning employers attempting to prevent former employees from obtaining other gainful employment. These complaints were resolved; however, one court case was instituted against an employer to gain compliance.

Investigations of 92 complaints concerning the illegal employment of minors were conducted. Willful and repeated violations of the Child Labor Laws resulted in 16 court cases being processed.

Magazine solicitation permits were issued to 72 sales crews traveling throughout the State.

Complaints involving the employment of illegal aliens required 98 investigations. Nevertheless, excellent cooperation has been received from the employers who either terminated the employment or released the alien until proper certification could be procured authorizing legal employment.

Three complaints were received, investigated, and resolved on discrimination because of physical handicaps. Further, one complaint on so-

liciting subscription contracts for books, magazines, etc.; and one complaint on employers to allow employees at least one day of rest in each week, were received and investigated.

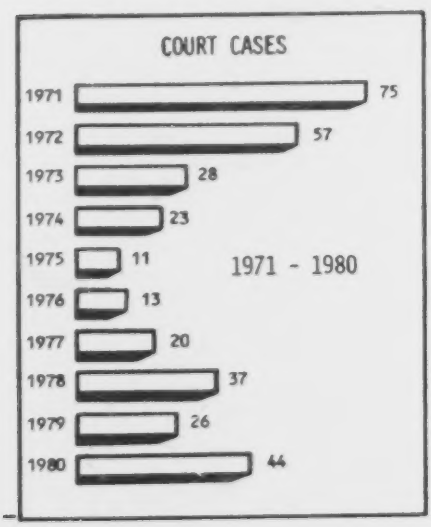
During 1980 there were 20,363 minors working under the jurisdiction of the Division: 9,261 with Employment Certificates; 1,652 with Special Work Permits; 6,864 with Newspaper Carrier Certificates; 2,452 with Age Certificates; and 134 with Work-Training Student-Learner Certificates. There are no statistics concerning minors in exempted jobs or illegally employed. The Division assists, instructs, and supervises the more than 800 Issuing Officers throughout the State who are charged with the responsibility of issuing properly executed Employment Certificates to minors under 16 years of age. Also, assistance is provided Juvenile Judges and Probation Officers in the issuance of Special Work Permits. Close coordination has been maintained with the Department of Education pertaining to their programs of Industrial Cooperative Training, Distributive Education, Home Economics, Vocational Occupational Training, and Rehabilitation and Vocational Training. Assistance is provided Federal programs, i.e., Youth Corps, Community Action, WECEP, and CETA, etc., for proper placement and certification of trainees.

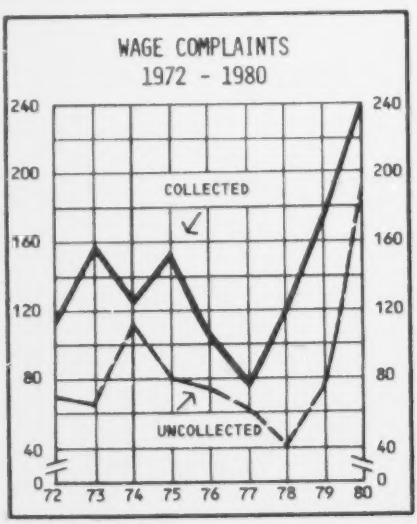
The Division provides speakers for meetings at school, civic, and business groups to furnish information on the administration and interpretation of the various assigned labor laws. Annually, the Division responds to several thousand telephone calls from employees, employers, and other interested persons requesting information and literature concerning these laws.

At some of the larger fairs and at Statewide association meetings, Division representatives are assigned to staff exhibits, distribute literature, and answer questions concerning the assigned labor laws. Through such efforts as these, employers, employees, potential employees, and other interested persons will become more aware of the various and diversified forms of legislation enacted for the work force in the State.

To provide reasonable accessibility to the citizens served, representatives of the Division are stationed in eight Field Offices maintained by the Department, in addition to the staff located in the Richmond Office.

As businesses continue to expand and employment increases in Virginia, complaints and requests for assistance are expected to increase accordingly. However, the employees of the Division are dedicated to provide quality service and will make every effort to continue an effective and efficient service to the employees, employers, and the public.





COURT CASES PROCESSED BY CLASSIFICATION

(Civil and Criminal)

1 9 8 0

Classification	Total
GRAND TOTAL	44
Civil	11
Criminal	33
Payment of Wages and Establishment of Regular Pay Periods	27
Civil	11
Criminal	16
Child Labor Laws of Virginia	16
Criminal	16
Preventing Employment by Others of Former Employee	1
Criminal	1

COURT DISPOSITIONS ON VIOLATIONS PROCESSED

(Civil and Criminal)

1 9 8 0

Title and Section Code of Virginia		Number of Warrants Issued	Convictions	Dismissals	Nol-Pros	Judgment Awarded
	TOTAL	44				
	Civil	11				
	Criminal	33				
40.1-29	Payment of Wages and Establishment of Regular Pay Periods	27				
	Civil	11		1		10
	Criminal	16	6	5	5	
40.1-78 et seq	Child Labor Laws of Virginia	16				
	Criminal	16	7	5	4	
40.1-27	Preventing Employment by Others of Former Employee	1				
	Criminal	1		1		

COMPLAINT INVESTIGATIONS BY CLASSIFICATION

(Excluding Payment of Wages and
Establishment of Regular Pay Periods)

1980

Classification	Total
GRAND TOTAL	326
Virginia Minimum Wage Act	110
Child Labor Laws of Virginia	92
Employment of Illegal Aliens	98
Right-to-Work Law	9
Preventing Employment by Others of Former Employees	4
Unlawful to Require Payment for Medical Examination as Condition of Employment	0
Employers to Allow Employees at Least One Day of Rest in Each Week	1
Equal Pay Irrespective of Sex	0
Discrimination Because of Physical Handicaps Prohibited	3
Soliciting Subscription Contracts for Books, Magazines, Etc.	1
Maximum Portion of Disposable Earnings Subject to Garnishment	8
Prohibition of Use of Certain Questions on Polygraph Tests for Employment	0

DIVISION OF

APPRENTICESHIP TRAINING

The Virginia Voluntary Apprenticeship Act was enacted in 1938 to establish a state-wide system of apprenticeship training. The Division of Apprenticeship Training, with the advice and guidance of the Virginia Apprenticeship Council, is charged with the responsibility of implementing the Act.

The Division's goal is to promote, develop and maintain a state-wide system of apprenticeship training through which skilled craftworkers will be trained to meet the requirements of employers and employees. This is accomplished through eight strategically located field offices, serviced by local representatives, who through direct contact with industry, trade associations, state and local vocational education entities and organized labor, provide services to sponsors and apprentices. Services include assisting employers in developing training programs, securing approval for veterans' benefits, coordinating related classroom instruction and resolving differences between sponsors and apprentices. Sponsors are advised of changes in state and federal regulations affecting apprentices.

Division personnel encourage close working relationships with other agencies involved in manpower related services. Promotion of apprenticeship training is provided by participation in career fairs, speaking engagements and providing films for informational purposes. Promotional efforts are directed toward new and expanding industries, guidance personnel, professional groups, trade and labor groups, women's organizations and veterans.

Division personnel serve on several Area Manpower Planning Councils. This cooperation insures that entry level trainees are aware of apprenticeship opportunities. This cooperative effort should provide Virginia with a comprehensive manpower training system to meet industrial requirements.

The cooperative working agreement between Industrial Cooperative Training programs in high schools throughout Virginia provides for the registration of high school students pursuing a skilled trade on a part-time basis is expanding. These students will complete a portion of their apprenticeship in high school. This cooperative program will encourage more students to enter the skilled trades and assist students in making the transition from school to full-time employment.

Over 10,000 apprentices were provided services during 1980. Programs were registered with 388 new sponsors and 3,366 new apprentices were registered. This was the tenth consecutive year that 1,000 or more apprentices completed training in Virginia. Total end-of-year registrations reflected a no-growth pattern; however, state-wide employment decreased .9 percent in manufacturing and 20 percent in construction in 1980.

Staff efforts assisted sponsors in Equal Employment Opportunity promotion, resulting in the placement of 14 percent minority and 9 percent female apprentices.

The Apprenticeship Division continues to participate in State and National Apprenticeship System (SNAPS), a program information system designed to collect data on a continuous basis throughout the United States.

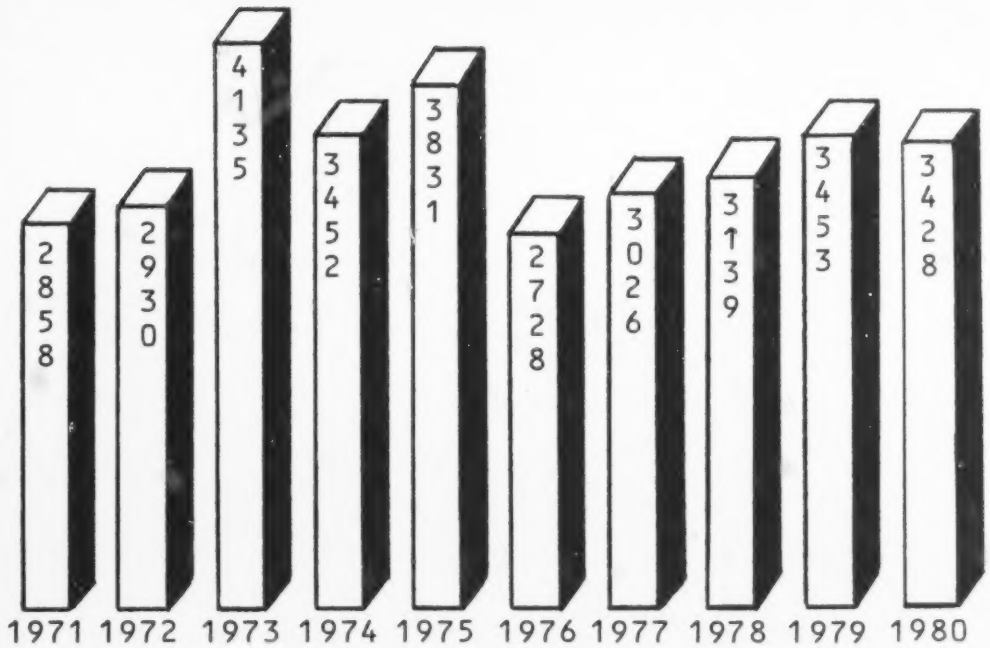
Continued cooperation with the Bureau of Apprenticeship and Training of the U. S. Department of Labor required program reporting changes. Registration information is now reported by Standard Industrial Classification codes as well as the Dictionary of Occupational Title codes. This will permit unified national statistics by industries.

The renewed emphasis on preparing Virginia's young and unskilled workers for the work force is creating a better working relationship between industry, education and state and federal manpower agencies. The highly skilled staff of the Apprenticeship Division has historically played a vital role in this effort and will continue to direct attention to this important task.

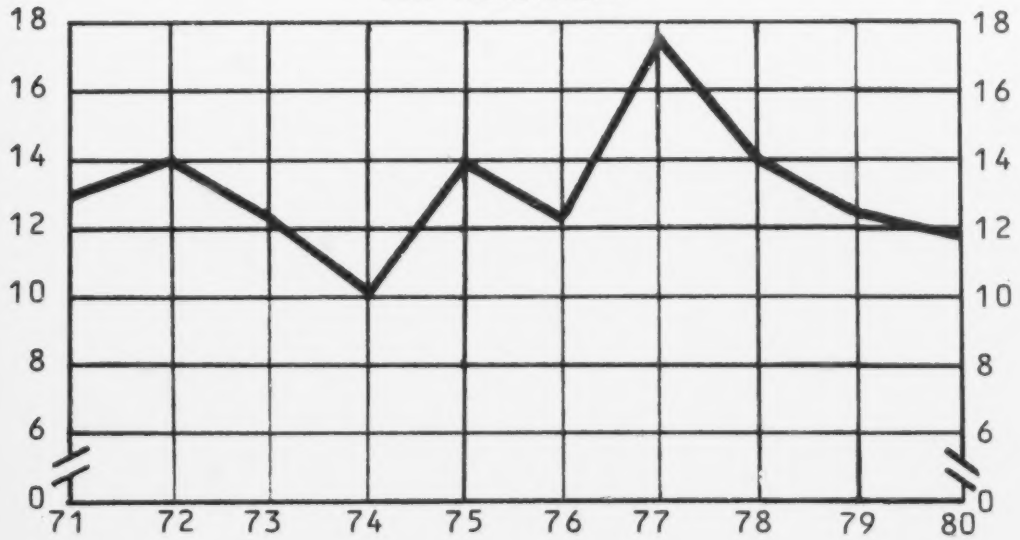
VIRGINIA APPRENTICESHIP RING

Virginia is the first state to adopt a state-wide apprenticeship program ring. The class ring is purchased by the new journeyperson, at his option, upon satisfactorily fulfilling all of the requirements of his registered apprenticeship. The ring symbolizes pride in craftsmanship and dignity in work. It commemorates the acquisition of skill and the accumulation of knowledge.

NUMBER OF NEW APPRENTICES REGISTERED
1971 - 1980



NUMBER OF APPRENTICES COMPLETED
1971 - 1980
(IN HUNDREDS)



STATISTICAL DATA ON APPRENTICESHIP PROGRAM

1940 - 1980

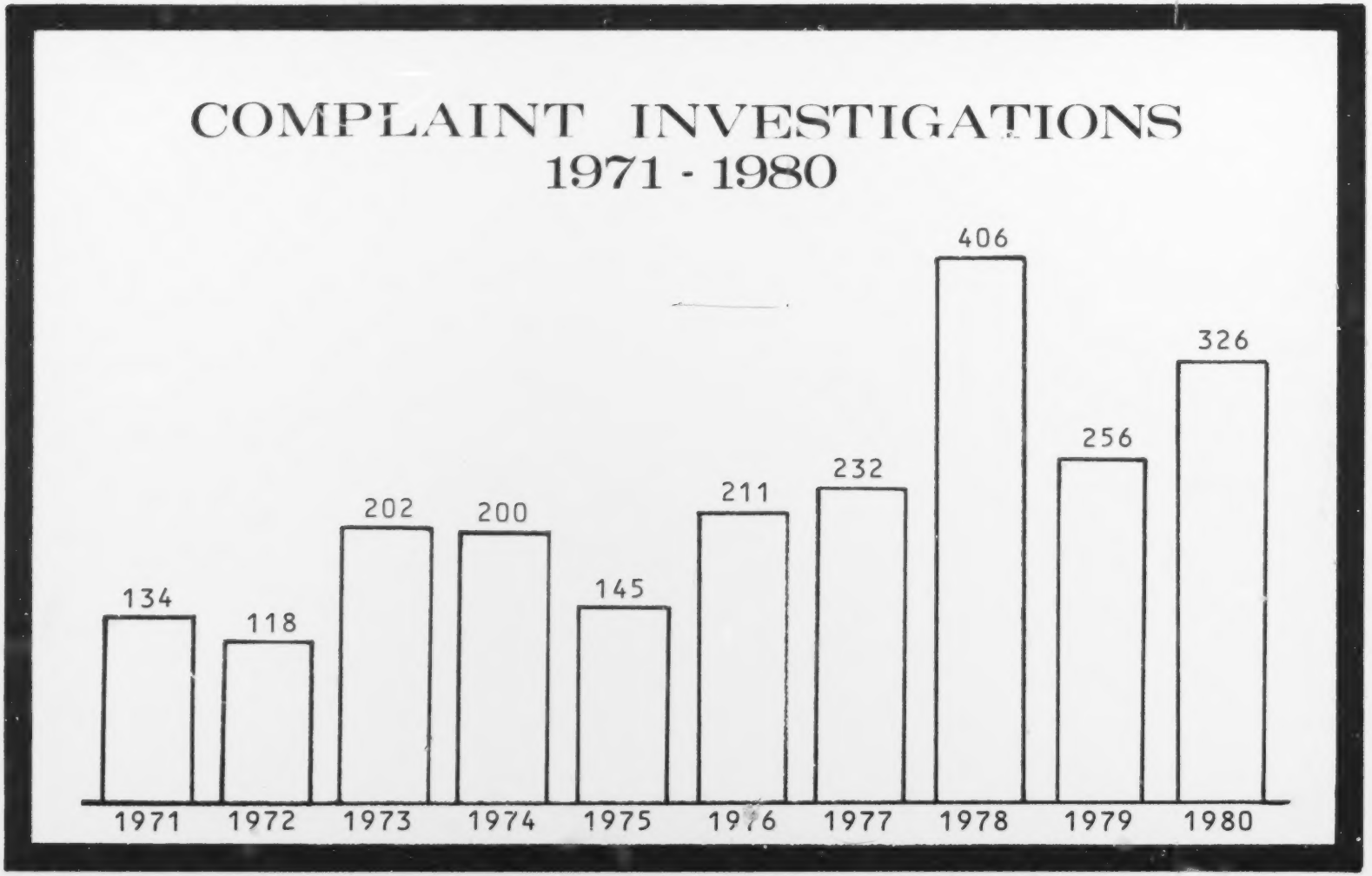
ITEMS	Total 1940-1980	Total 1980
Firms approved to train apprentices	15,504	388
Programs revised 1/	-	583
Apprentices active at beginning of 1980	-	7,105 c/
Apprentices registered and reinstated	76,761 c/	3,428 c/
Apprentices cancelled	43,311 c/	2,081 a/
Apprentices suspended	-	46
Apprentices completed without a certificate	-	103 b/
Apprentices completed with a certificate	23,752	1,191
Apprentices active December 31, 1980	-	7,112 c/

1/ Programs changed to incorporate wage changes, outline of training schedules, etc.

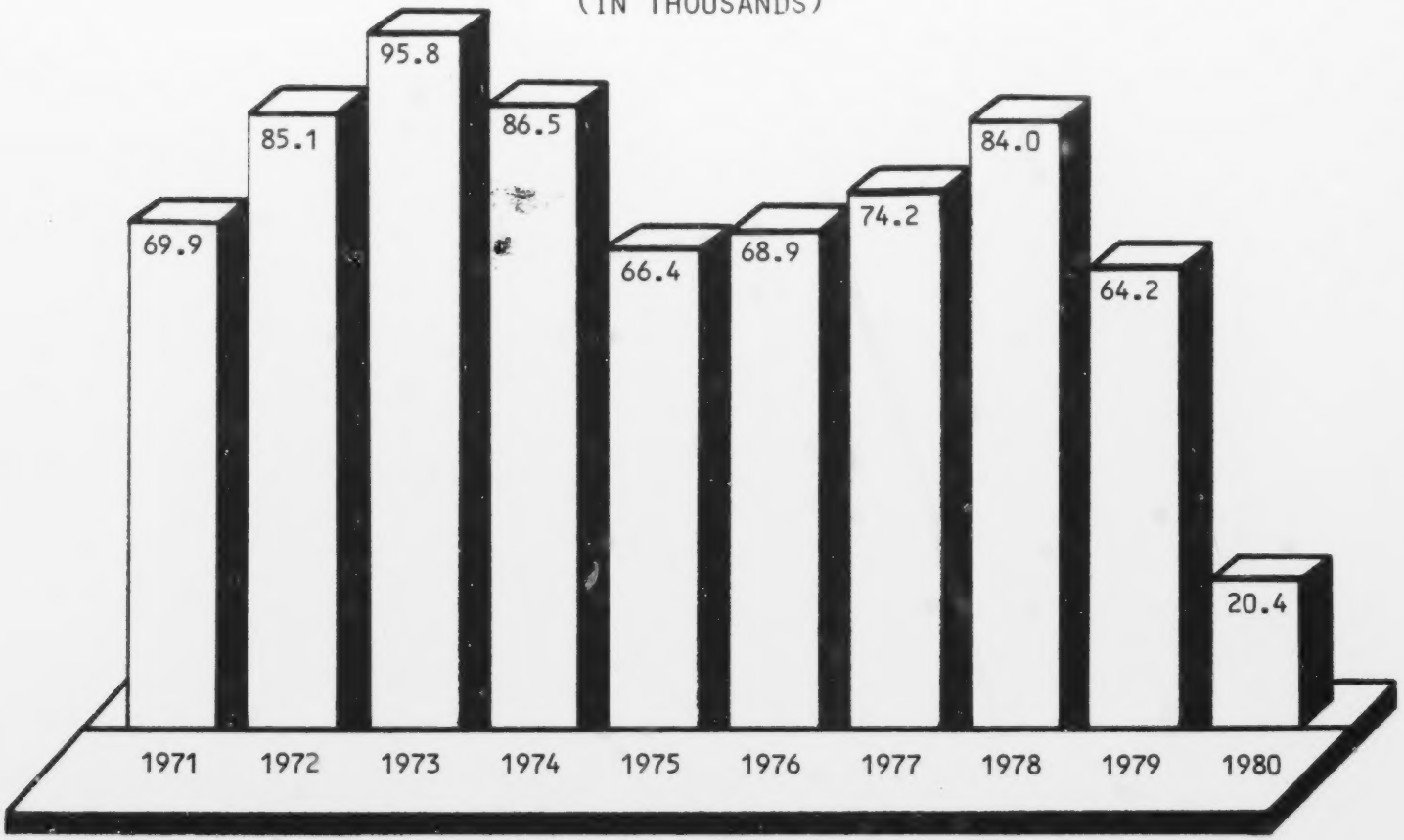
a/ The number of cancellations is due largely to two factors: (1) work shortage and (2) removal of apprentices who refused to take related instruction.

b/ These are apprentices who completed the on-the-job phase of their training but for some reason did not complete all related instruction requirements.

c/ This figure includes Newport News Shipbuilding and Dry Dock Company apprentices and apprentices in nationally registered programs.


COMPLAINT INVESTIGATIONS
1971 - 1980
134
118
202
200
145
211
232
406
256
326
1971
1972
1973
1974
1975
1976
1977
1978
1979
1980

EMPLOYMENT CERTIFICATES ISSUED MINORS AGES 12 TO 18
1971 - 1980
(IN THOUSANDS)



REGISTERED APPRENTICESHIP SYSTEMS, PARTICIPATING ESTABLISHMENTS, AND APPRENTICES, BY TYPE OF SYSTEM IN VIRGINIA AS OF DECEMBER 31, 1980 1/

APPRENTICESHIP SYSTEMS AND RELATED FACTORS	Type of System					
		Group		Individual		
					Not Joint	
	All Types	Joint	Not Joint	Joint	No Union	Union Waiver
Systems, Total	2,413	39	4	68	2,277	25
Systems with no apprentices	1,025	0	0	23	995	7
Systems having apprentices	1,388	39	4	45	1,282	18
Apprentices, Total	7,112	1,139	220	672	4,913	168

1/ DEFINITIONS FOR STATISTICAL PURPOSES

The following definitions are intended for statistical purposes only to cover variations in current practices among states, and to permit uniformity in national tables. They are not intended as substitutes for any definitions already contained in the policies of State or Federal authorities.

Apprenticeable occupation

Any occupation so designated by the Bureau of Apprenticeship or a State Apprenticeship Agency recognized for statistical purposes by the Bureau of Apprenticeship.

Registered apprentice

An employee who under an expressed or implied agreement for a stipulated term, receives instruction in an apprenticeable occupation, and who is employed in a registered apprenticeship system, and concerning whom a recognized apprenticeship agency has on record all of the information it requires.

Registered apprenticeship system

A system for the training of apprentices through employment, established by employer(s) and/or union(s), and in which authority has been placed for determining that an apprentice has completed his training, and regarding which a written description of the terms and conditions of employment and training of apprentices has been registered by a recognized apprenticeship agency.

Types of registered apprenticeship systems

(GJ) Group Joint - A system embracing two or more companies which is jointly established by employers and union(s), and operated by a committee equally representative of employers and union(s).

(GW) Group Waiver - A system embracing two or more companies which is jointly established by employers of union(s), but in which one of the parties has waived participation in the operation of the system.

(GN) Group Non-Joint - A system embracing two or more companies which is established and operated by employers only.

(IJ) Individual Joint - A system limited to one company which is jointly established by employer and union(s), and operated by a committee equally representative of employer and union(s).

(IW) Individual Waiver - A system limited to one company which is jointly established by employer and union(s), but in which the union has waived participation in the operation of the system.

(IN) Individual Non-Joint - A system limited to one company which is established and operated by employer only.

APPRENTICE ACTIVITY BY OCCUPATION GROUP
1980

Occupation	Beginning Period	New Apprentices	Reinstatements	Cancellations	Suspensions	Completions	CWC*	End of Period	Sponsors of Occup.
Architectural Drafter	2	1	0	2	0	0	0	1	7
Electronic Technician	22	23	0	5	0	10	0	30	16
Electrical Drafter	1	0	0	0	0	0	0	1	2
Engineering Aide	8	1	0	0	0	1	0	8	5
Civil Drafter	1	4	1	0	0	0	0	6	8
Tool Designer	1	0	0	0	0	0	0	1	2
Mechanical Technician	1	0	0	0	0	1	0	0	1
Mechanical Drafter	1	0	0	0	0	1	0	0	7
Marine Designer	1	0	0	0	0	0	0	1	1
Detailer, Furniture	1	0	0	0	0	0	0	1	1
Drafter, Commercial	0	1	0	0	0	0	0	0	2
Detail Drafter	1	0	0	1	0	0	0	1	2
Party Chief (Surveyor)	63	16	0	24	3	2	5	45	43
Instrument Surveyor Assistant	5	1	0	1	0	0	0	5	9
Laboratory Technician	1	0	0	0	0	0	0	1	1
Materials Technician	4	0	0	1	0	0	0	3	2
Dental Assistant	1	0	0	0	0	0	0	1	3
Florist	5	1	0	4	0	2	0	0	4
Commercial Photographer	2	0	0	0	0	1	0	1	3
Manager, Bus Terminal	0	1	0	0	0	0	0	1	1
Legal Secretary	0	1	0	0	0	0	0	1	1
Materials Expediter	1	0	0	0	0	0	0	1	2
Auto Parts Clerk	3	0	0	1	0	0	1	1	3
Optician, Dispensing	12	27	0	5	0	3	1	30	34
Cook	39	23	0	23	0	8	1	30	35
Meat Cutter	14	1	0	10	0	1	0	4	32
Barber	167	95	1	46	1	73	1	82	312
Cosmetician	394	378	4	283	7	108	11	367	1,022
Shoe Repairer	1	0	0	0	0	0	0	1	2
Correction Officer	3	21	0	15	0	4	0	5	2
Horseshoer	1	0	0	0	0	0	1	0	1
Plater	3	1	0	0	0	0	0	4	4
Electric Instrument Mechanic (Chemical)	4	0	0	0	0	0	0	4	1
Molder	13	6	0	2	0	0	0	17	2
Miller	1	0	0	0	0	0	0	1	2
Baker	3	2	0	1	0	0	0	3	4
Plywood Furniture Technician	2	0	0	0	0	0	0	2	2
Furniture Manufacturing Technician (Veneer)	3	0	0	0	0	0	0	3	2
Experimental Facilities Mechanic	19	18	1	5	0	1	0	32	1
Modelmaker	3	0	0	0	0	3	0	0	1
Machinist	484	210	8	112	1	62	10	517	233
Auto Machinist	10	1	0	6	0	0	0	5	11
Experimental Machinist	4	3	0	0	0	3	0	4	2
Mold Maker (Die Casting & Plastic Molding)	8	3	0	1	0	0	0	10	1
Tool Maker	12	2	0	2	0	3	0	9	7
Highway Construction Inspector	6	0	0	0	0	1	0	5	2
Blacksmith	5	3	0	0	0	1	0	7	2
Springmaker	1	0	0	0	0	1	0	0	1
Metal Fabricator	14	8	0	5	0	6	0	11	1
Auto Mechanic	134	23	1	60	1	9	7	81	186
Construction Equipment Mechanic	86	18	1	18	0	13	1	73	38
Truck Mechanic	27	21	1	15	1	8	1	24	33
Motorcycle Mechanic	1	6	0	0	0	0	0	7	11
Transmission Mechanic	2	1	0	0	0	0	0	3	2
Aerospace Engineering Technician	4	0	0	1	0	1	0	2	3
Outside Machinist	178	97	0	21	0	42	0	212	4
Motorboat Mechanic	6	0	0	5	0	0	0	1	9
Farm Equipment Mechanic	6	4	0	5	0	0	0	5	14
Diesel Mechanic	21	5	0	4	0	3	0	19	14
Fuel Injection Mechanic	1	1	0	1	0	0	0	1	3
Gas Engine Mechanic	2	2	0	2	0	0	0	2	6
Instrument Mechanic	2	0	0	1	0	0	1	0	1
Maintenance Mechanic (Chemical)	6	0	0	0	0	0	0	6	1
Pump Servicer	1	0	0	1	0	0	0	0	2
Treatment Plant Mechanic	3	16	0	1	0	0	0	18	2
Fire Control Mechanic	1	0	0	0	0	1	0	0	1
Gunsmith	2	2	0	2	0	0	0	2	3
Cash Register Servicer	2	0	0	1	0	0	0	1	3
Office Machine Servicer	51	1	1	6	0	0	1	46	25
Scale Mechanic	3	1	0	1	0	1	0	2	3
Air Conditioning Mechanic	1	0	0	0	0	1	0	0	1
Industrial Air Conditioning Mechanic	3	2	0	2	0	0	0	3	11
Gas Appliance Servicer	2	0	0	0	0	0	0	2	4
Refrigeration Mechanic	69	30	1	18	1	14	1	66	61
Maintenance Mechanic	209	95	4	50	2	40	4	212	108
Millwright	125	48	2	11	3	37	1	123	14
Bowling Alley Maintenance Mechanic	1	1	0	0	0	1	0	1	2
Machine Assembler	0	3	0	0	0	0	0	3	1
Industrial Sewing Machine Repairer	1	0	0	0	0	0	0	1	2
Cylinder Press Operator	6	0	0	4	0	1	0	1	7
Rotogravure Press Operator	68	9	0	5	0	14	0	58	2
Web Press Operator	23	27	0	2	0	5	5	38	14
Offset Press Operator	15	8	0	6	0	3	0	14	33
Collating Machine Operator	2	0	0	1	0	1	0	0	4
Bindery Worker	39	13	0	5	0	5	0	42	8
Cabinet Maker	64	16	0	27	1	8	2	42	47
Loft Worker	14	7	0	1	0	5	0	15	1
Wood Patternmaker	10	5	0	0	0	4	0	11	7
Molder Operator	0	1	0	0	0	0	0	1	1
Machinist, Wood (Millman)	47	5	0	18	0	1	1	32	8
Metal Patternmaker	27	1	0	2	0	10	0	16	4
Engineering Technician (Aerospace Model Development)	3	8	0	0	0	1	0	10	1
Jeweler	3	0	0	0	0	2	0	1	5
Locksmith	6	4	0	5	0	0	1	4	6
Electro-Mechanical Technician	7	12	0	4	0	1	1	13	3

APPRENTICE ACTIVITY BY OCCUPATION GROUP
1980

Occupation	Beginning Period	New Apprentices	Reinstatements	Cancellations	Suspensions	Completions	CWC*	End of Period	Sponsors of Occup.
Instrument Mechanic	33	5	0	1	0	6	0	31	11
Meter Repairer	1	0	0	0	0	0	0	1	1
Dental Lab Technician	5	0	2	2	0	3	0	2	15
Prosthetics Technician	0	1	0	0	0	0	0	1	2
Optician	1	0	0	0	0	1	0	0	2
Watch Repairer	1	0	0	1	0	0	0	0	2
Opthalmic Technologist	0	1	0	0	0	0	0	1	1
Optical Lab Technician	3	0	0	0	0	1	0	2	9
Biomedical Equipment Technician	0	3	0	1	0	0	0	2	1
TV and Radio Repairer	6	5	0	4	0	0	0	7	18
Electric Motor Repairer	12	0	1	6	2	0	0	5	11
Battery Repairer	4	0	0	4	0	0	0	0	1
Bootmaker	1	0	0	0	0	0	0	1	1
Plastics Fabricator	5	0	0	0	0	2	0	3	3
Furniture Finisher	14	0	0	6	0	0	1	7	8
Furniture Assembler	16	0	0	4	0	0	2	10	4
Potter	0	1	0	0	0	0	0	1	1
Furniture Upholsterer	5	0	0	2	0	0	1	2	12
Sailmaker	3	2	0	0	0	0	0	5	1
Structural Steel Worker	46	30	0	12	2	5	0	57	7
Sheet Metal Worker	312	155	3	93	3	41	2	331	133
Boilermaker	48	24	0	3	0	11	0	58	3
Boilerhouse Mechanic	2	4	0	0	0	0	0	6	1
Rigger (Ship)	66	40	0	14	0	5	0	87	3
Shipfitter	212	104	0	34	0	29	0	253	4
Truck Body Builder	2	0	0	0	0	0	0	2	2
Auto Body Repairer	20	9	0	10	0	0	1	18	55
Fabricator-Assembler (Metal)	3	0	0	1	0	0	0	2	1
Welder-Fitter	0	1	0	1	0	0	0	0	1
Welder	138	70	1	21	0	17	0	171	21
Line Erector (Power and Light)	33	2	0	1	0	1	0	33	9
Station Installer	1	0	0	1	0	0	0	0	2
Alarm Trouble Repairer	1	1	0	0	0	2	0	0	1
PBX Installer	3	0	0	0	0	0	0	3	1
Avionics Technician	1	0	0	0	0	1	0	0	1
Electrician	1,047	482	10	327	3	160	8	1,041	270
Ship Electrician	210	114	2	37	1	32	0	256	5
Electric Appliance Servicer	8	0	0	2	0	1	0	5	16
Electronics Mechanic	74	24	0	0	0	5	0	93	12
Maintenance Electrician	151	44	1	22	1	36	2	135	81
Cable Splicer	6	5	0	0	0	2	0	9	1
Painter	53	61	1	39	0	6	2	68	20
Painter (Ship)	37	21	0	9	0	6	0	43	3
Lather	7	0	0	1	0	0	0	6	5
Plasterer	12	4	0	5	0	2	2	7	6
Drywall Applicator	1	3	1	0	0	0	0	5	1
Cement Mason	11	0	0	4	0	2	0	5	3
Auto Painter	1	0	0	0	0	0	0	1	2
Operating Engineer	44	12	0	8	0	11	0	37	13
Maintenance Carpenter	8	4	0	2	0	2	0	8	10
Ship Carpenter	17	6	0	1	0	3	0	19	3
Carpenter	344	188	5	137	2	31	3	364	139
Carpenter, Rough	2	2	0	0	0	0	0	4	1
Joiner (Ship)	21	7	0	1	0	2	0	25	3
Shipwright	25	3	0	2	0	5	0	21	2
Bricklayer	223	42	3	104	6	16	5	137	70
Tile Setter	4	0	0	1	0	0	0	3	4
Pipefitter (Ship)	243	119	0	38	0	38	0	286	4
Oil Burner Servicer and Installer	0	2	0	0	0	0	0	2	2
Pipefitter	269	68	1	37	0	68	0	233	65
Plumber	410	128	3	139	5	34	5	358	183
Insulation Worker	58	49	1	23	0	12	4	69	10
Pipcoverer	28	12	0	0	0	2	0	38	2
Floor Layer	8	0	0	2	0	1	2	3	14
Glazier	13	5	0	0	0	5	0	13	6
Sign Erector	2	0	0	2	0	0	0	0	1
Asbestos Worker	27	7	0	12	0	3	2	17	6
Dockmaster	2	1	0	0	0	1	0	2	1
Maintenance Repairer (Factory or Mill)	4	2	0	2	0	3	0	1	1
Maintenance Repairer (Building)	12	8	0	5	0	5	0	10	10
Mover and Storage Technician	2	0	0	0	0	0	2	0	1
Furniture Manufacturing Technician (Lumber)	1	0	0	0	0	0	0	1	2
Stationary Engineer	2	15	0	0	0	5	0	12	6
Water Treatment Plant Operator	16	0	0	1	0	5	0	10	7
Wastewater Treatment Plant Operator	5	44	0	8	0	1	0	40	5
Photo Retoucher	10	0	0	1	0	3	0	6	1
Etcher-Photoengraving	21	6	0	2	0	5	0	20	4
Photo Engraver	1	0	0	1	0	0	0	0	7
Finisher-Photoengraving	2	0	0	0	0	0	0	2	1
Printer-Photoengraving	2	0	0	5	0	0	0	2	1
Stripper-Photoengraving	5	0	0	5	0	0	0	0	4
Photographer-Photoengraving	6	1	0	0	0	0	0	7	5
Lithographer	2	3	0	1	0	2	0	2	5
Transferrer	1	3	0	0	0	1	0	3	4
Compositor	6	0	0	4	0	0	0	2	21
Job Printer	2	1	0	1	0	1	0	1	7
Bookbinder	1	0	0	0	0	0	0	1	5
Engraver (Machine)	1	2	0	0	0	0	0	3	1
Stripper	6	5	0	1	0	3	0	7	4
Screen Printer	1	0	0	0	0	0	0	1	2
TOTALS	7,105	3,366	62	2,081	46	1,191	103	7,112	4,049

*Completion without certificate - apprentices who completed on-the-job training but did not complete related instruction.

INDUSTRIES WITH APPRENTICESHIP PROGRAMS GROUPED BY THE NUMBER OF EMPLOYEES EMPLOYED

1980

Number of Systems	Number of Employees in Firm
1,340	1 to 9
467	10 to 24
200	25 to 49
129	50 to 99
87	100 to 199
137	200 to 999
43	1,000 to 4,999
8	5,000 or more
2	Size Class N/A
2,413	TOTAL SYSTEMS

Commonwealth of Virginia

Certificate of Completion of Apprenticeship

Know ye That J. M. A. Sample has satisfactorily served an apprenticeship of 4 years at the trade of Craftsman this 5th day of February A.D. 19 80 in accordance with standards approved by the Virginia Apprenticeship Council and is, by virtue of the Statutes of the Commonwealth, awarded this certificate.

In Testimony Whereof the official signatures of the Virginia Apprenticeship Council have been subscribed hereon this 11th day of November A.D. 19 80

For the Council

Raymond M. Roberts
Chairman

Robert F. Beard, Jr.
Secretary

DIVISION OF

INDUSTRIAL SAFETY

The Division of Industrial Safety is charged with the responsibility of administering the provisions of Title 40.1 relating to the safety of employees engaged in industrial work throughout the Commonwealth of Virginia in both the public and private sectors.

On October 1, 1976, the Division began enforcement activities in the private sector in accordance with the State Plan, approved by the U. S. Department of Labor under Section 18(b) of the Occupational Safety and Health Act. The State Plan is designed to provide a safe and healthful workplace for all employees of employers located in the Commonwealth. This goal is accomplished by making scheduled inspections, responding to complaints from employees and/or their representatives and investigating fatalities and catastrophes.

A total of 1,155 inspections were made of worksites, located throughout the State, covering both manufacturing and non-manufacturing operations, in the private and public sectors. As a result of these inspections, over 4,178 violations were found and cited by the Occupational Compliance Safety and Health Officers.

As provided for in the State Plan and Title 40.1, approximately 52 informal conferences concerning issued citations were conducted by the Director and Field Supervisor with employer representatives requesting such conferences, and court proceedings were initiated for enforcement where settlement could not be reached through conciliation.

Latest figures show Virginia had an 8.6 incidence rate in 1979 compared to 8.9 in 1978 of job-related injuries and illnesses per 100 full-time workers in the private sector compared to the national average rate of 9.5 in 1979 and 9.4 in 1978. This would seem to indicate that the State Safety Program and the cooperation of employers and employees is continuing to improve the safety and health conditions in the Commonwealth's workplaces. Contributing to this success are the safety programs, safety demonstrations, and workplace visits conducted by the Voluntary Compliance and Safety Training Division.

The Division participated in Regional Safety Conferences sponsored by the Virginia Safety Association. Compliance Safety and Health Officers attended four (4) safety schools conducted at the OSHA Institute in Des Plaines, Illinois, in an effort to update their skills and expertise in current standards and interpretations.

The Division also participated in three (3) Departmental training seminars, provided speakers for five (5) programs sponsored by various groups representing both management and labor to better acquaint employers and employees of the implementation of the Program.

The Division had a 23% turnover during 1980, which has adversely impacted, to some degree, on the total Program's achievements.

The Industrial Safety Division will continue its efforts to reduce the number of work-related injuries and illnesses in Virginia by providing an effective inspection, accident investigation and enforcement program for all employers and employees in industrial industries throughout the Commonwealth. The evidence would indicate this Program has been effective in reducing safety and health hazards in the workplace through the identification of hazards and timely abatement of the hazards.

ANALYSIS OF ACTIVITIES OF THE INDUSTRIAL SAFETY DIVISION FOR THE YEAR 1980

Item	Accomplishments
General Scheduled Inspections	731
Fatality Investigations	26
Total Accident Investigations	98
Complaint Investigations	164
Follow-Up Inspections	162
Total Safety Inspections	1,155
Safety Violations Noted	4,178
Court Cases Completed	11
Court Cases Adjudicated In Commonwealth's Favor	11
Informal Conferences	52
Speeches and Seminars	8
Safety Schools for Representatives	4
State Safety Conference	1

DIVISION OF

CONSTRUCTION SAFETY

The Division of Construction Safety is responsible for the administration and enforcement of those laws pertinent to the safety and health of employees engaged in construction, demolition, and excavation work. The authority for this enforcement is derived from the Title 40 Labor Laws of Virginia, which apply to both the public and private sectors.

The Division's primary function is to make scheduled inspections of construction and related worksites. In addition, the Division's staff of inspectors is required to respond to complaints from employees and/or their representatives and to investigate fatalities and catastrophes. The objective of the overall program is to eliminate workplace hazards through inspection, abatement and enforcement.

A total of 1,505 safety inspections was conducted in both the public and private sectors during the year 1980. This was an increase of 56% over 1979. An average of 16 Compliance Officers cited 2,471 violations of Virginia's occupational safety and health laws and standards which was a 46% increase over 1979. Twenty-eight cases were litigated in either the General District or Circuit Courts. Others were settled either by voluntary settlement or in informal conferences. Penalties in the amount of $73,290 were assessed which were up from 1979 by 41%. Fifty-seven informal conferences were conducted by the Director and/or Field Supervisor with employers and/or their representatives. This was an increase of 96% over the year 1979. The latest statistical figures indicate that the incidence rate in the construction industry decreased by 6% from 1978 to 1979.

The Division's staff investigated 103 complaints from employees and/or their representatives. Employee complaints of hazardous conditions take first priority and there was never a backlog during the year.

It is the Division's goal to continue to improve the safety conditions at the worksite for the employees through an effective on-site inspection program.

The Compliance Safety and Health Officers attend on a regular basis various technical classes at the Occupational Safety and Health Institute in Chicago, Illinois. This on-going program enables the Compliance Officers to stay abreast with modern technology in the construction industry and provides the Compliance Officers with the technical expertise required for the job.

Legislation was introduced in the 1980 General Assembly by the State Board for Contractors which would require the registration of all classes of resident and nonresident contractors. This legislation was passed and became effective July 1, 1980. Accordingly, after July 1, 1980, the Division ceased to enforce the law governing registration of certain nonresident contractors and subcontractors.

The manufacturing, storage, handling, use and sale of explosives, over which the Division maintains control and issues permits, presented little problem in 1980 and resulted in no court cases for violations of this statute.

It is the goal of this Division to maintain a consistent and efficient inspection system using every available resource to obtain a safe work environment free from recognized hazards.

JOINT REGISTERED APPRENTICESHIP SYSTEMS AND REGISTERED APPRENTICES IN JOINT SYSTEMS

BY TYPE OF SYSTEM AND BARGAINING AGENCY IN VIRGINIA AS OF DECEMBER 31, 1980

Bargaining Agency	Bargaining Agency Code	Joint Systems			Apprentices in Joint Systems		
		Total	Group	Individual	Total	Group	Individual
All A.F.L. & C.I.O. Unions	36	107	39	68	1,811	1,139	672
Asbestos Workers	05	4	3	1	21	19	2
United Automobile Workers of America	06	1	0	1	8	0	8
Bakery and Confectionary Workers	07	1	0	1	4	0	4
Boilermakers	11	1	0	1	353	0	353
Bookbinders	12	1	0	1	0	0	0
Bricklayers, Masons and Plasters	14	5	4	1	57	57	0
Bridge, Structural and Ornamental Iron	15	3	3	0	52	52	0
Carpenters and Joiners	18	4	4	0	99	99	0
International Chemicals Workers	20	2	0	2	28	0	28
Electrical Workers	26	13	8	5	559	511	48
Engineers	28	2	2	0	35	35	0
Glass Bottle Blowers Association of United States	35	1	1	0	18	18	0
Glass Workers	37	2	1	1	14	10	4
Lathers - Wood, Wire and Metal	47	0	0	0	0	0	0
Tile and Marble Setters	53	2	0	2	1	0	1
Mine Workers of America	59	1	0	1	16	0	16
Painters, Decorators and Paperhangers	63	3	3	0	51	51	0
Patternmakers	65	0	0	0	0	0	0
Photo-Engravers	66	1	0	1	6	0	6
Plasterers and Cement Finishers	67	2	2	0	9	9	0
Plumbing and Pipefitting	69	5	4	1	180	178	2
Printing Pressmen and Assistants	74	9	0	9	25	0	25
Sheet Metal Workers	86	3	3	0	53	53	0
Stereotypers and Electrotypers	93	1	0	1	0	0	0
Teamsters, Chauffeurs, Warehousemen and Helpers	99	1	0	1	0	0	0
United Textile Workers of America	101	1	0	1	0	0	0
International Typographical Union	103	3	0	3	0	0	0
Combined A.F.L. Unions	299	1	0	1	0	0	0
Oil Workers	324	0	0	0	0	0	0
Paperworkers of America	327	1	0	1	60	0	60
Rubber, Cork, Linoleum & Plastic Workers of America	332	1	0	1	41	0	41
United Steel Workers	334	3	0	3	18	0	18
Machinists I.A.M.	618	22	0	22	40	0	40
Union Affiliation Not Indicated	900	1	1	0	47	47	0
Union Unassigned	901	5	0	5	13	0	13
Aluminum Workers International	902	1	0	1	3	0	3

ACTIVITIES OF APPRENTICESHIP TRAINING FIELD REPRESENTATIVES

The Apprenticeship Training Field Representatives are daily making an important contribution to increasing the productivity of industry and business throughout Virginia. The Apprenticeship Training Field Representative, because of the nature of his position, background of trade and educational experience, and knowledge of employer and employee relations, provides an effective counseling and advisory service to over 2,000 business and industrial establishments each year.

Many establishments, too small to employ personnel and training specialists, rely on the field representatives to advise and assist in the planning and developing of training programs that meet their respective needs. These programs are helping to increase productivity by reducing waste and inefficiency through the development of all-around skilled mechanics. While the Apprenticeship Training Field Representative has no responsibility for placement of an apprentice, he performs an important service to industry, the community, and the State through his activity of advising employers on entrance requirements for apprentices, taking part in high school career programs, promoting the use of approved guidance and testing procedures offered by the Virginia Employment Service. Another contribution in the public interest is brought about by the field representative who brings labor and management together as a Joint Apprentice Committee, where they work harmoniously for the best interest of industry and the young apprentice who is the future mechanic.

The field representative, because of his position and experience, probably has a better opportunity to provide an effective service to industry and community through the development and maintenance of skill than any other public employee.

ACTIVITY REPORT FOR APPRENTICESHIP FIELD REPRESENTATIVES

1980 REPORT OF APPRENTICE ACTIONS BY AREAS

AREA	APPRENTICE INFORMATION					COMPLETIONS WITHOUT CERTIFICATE	PROGRAM INFORMATION		
	NEW AGREEMENTS	REIN-STATEMENTS	SUSPEN-SIONS	CANCEL-LATIONS	COMPLE-TIONS		NEW PROGRAMS	REVISED PROGRAMS	CANCELLED PROGRAMS
Bristol *	69	4	2	117	31	13	20	16	82
Front Royal	151	3	4	78	33	9	44	47	61
Lynchburg	115	0	0	53	84	3	27	20	11
Newport News	197	4	0	197	86	7	30	48	237
Norfolk (I-JC)	216	4	2	117	39	2	24	52	12
Norfolk (II-TK)	223	3	4	161	58	13	27	74	30
Northern Virginia (I-FG)	279	9	24	227	44	13	54	70	58
Northern Virginia (II-JM) **	189	10	9	150	74	8	22	31	44
Richmond (I-TE) ***	387	0	0	245	132	6	31	59	28
Richmond (II-WP)	198	1	0	191	130	7	21	35	102
Roanoke (I-RV)	137	4	0	106	55	5	35	40	85
Roanoke (I-WW)	216	6	1	113	96	11	26	60	81
Staunton	124	4	0	92	73	6	27	31	53
TOTALS BY AREAS	2,501	52	46	1,847	935	103	388	583	884
National and In-Plant Programs	865	10	0	234	256	0	0	0	0
GRAND TOTAL	3,366	62	46	2,081	1,191	103	388	583	884

* Field Representative on special assignment for first two and one-half months of the year.
** Position vacant for five months.
*** Sick leave for three months.

FIELD STAFF CONTACTS

BY AREAS AND TYPES

1980

The following is a report showing contacts made by areas and types during 1980 by the field staff of the Division of Apprenticeship Training. Development Contacts are contacts for the purpose of promoting and developing new Apprenticeship Training Programs in individual plants, joint committees, areas, trades, etc. Maintenance Contacts are for the purpose of servicing or maintaining Apprenticeship Training Programs already approved and registered by the Council. Other Contacts are with Vocational Education people, local school officials, Employment Service people, school guidance personnel and all other groups and associations related to and interested in Apprenticeship Training.

Area	Development	Maintenance	Other	Totals
Bristol *	207	373	75	655
Front Royal	194	575	71	840
Lynchburg	151	353	93	597
Newport News	81	477	45	603
Norfolk (I-JC)	232	396	238	866
Norfolk (II-TK)	74	501	82	657
Northern Virginia (I-FG)	114	1,527	80	1,721
Northern Virginia (II-JM)**	62	362	148	572
Richmond (I-TE) ***	128	242	79	449
Richmond (II-WP)	113	493	152	758
Roanoke (I-RV)	205	245	295	745
Roanoke (II-WW)	98	500	174	772
Staunton	267	428	238	933
TOTALS	1,926	6,472	1,770	10,168

* Field Representative on special assignment for first two and one-half months of the year.
** Position vacant for five months.
*** On sick leave for three months.

COMPARATIVE REPORT OF CONTACTS MADE BY FIELD STAFF

BY MONTHS AND TYPES

1980

The following is a comparative report of the contacts made by the field staff of the Division of Apprenticeship Training during 1980. This report is based on the same figures used in compiling the report of contacts made by the field staff and shown by areas and types. This table shows the types of contacts by the number made during each month of the year.

Month	Development	Maintenance	Other	Totals
January	193	505	146	844
February	163	560	150	873
March	141	441	107	689
April	131	415	127	673
May	198	586	173	957
June	148	499	169	816
July	195	692	154	1,041
August	193	585	164	942
September	245	602	160	1,007
October	169	775	188	1,132
November	76	390	129	595
December	74	422	103	599
TOTALS	1,926	6,472	1,770	10,168

ANALYSIS OF ACTIVITIES OF THE CONSTRUCTION SAFETY DIVISION FOR THE YEAR 1980

Safety Inspections:	
Accident Inspections	41
Complaint Inspections	103
General Schedule Inspections	1,311
Follow-up Inspections	50
Other Regulatory	4
Fatal Accident Investigations	30
Safety Violations	2,471
Court Cases Completed	28
Informal Conferences	57
Penalties Assessed for Violations	$73,290
Schools for Safety Representatives	7
State Safety Conference	1
Speeches and Seminars	5
Explosive Permits Issued:	
Storage of Explosives	1,062
Small Users of Explosives	420
Special Use of Explosives	4
Sale of Explosives	69
Manufacturers of Explosives	6
Revenue Collected	$16,240
Registration of Nonresident Employers	87
Revenue Collected	$ 8,025

VIRGINIA AND METROPOLITAN AREAS
ESTIMATED EMPLOYMENT IN CONTRACT CONSTRUCTION INDUSTRIES
ANNUAL AVERAGES 1976 - 1980

STATE AND AREA	EMPLOYMENT AVERAGE FOR YEAR				
	1980	1979	1978	1977	1976
Virginia					
Construction	124,300	135,400	130,200	119,000	111,800
General Building Contractors	39,700	44,200	41,000	37,300	34,500
Heavy Construction Contractors	20,300	24,100	24,300	22,600	21,900
Special Trade Contractors	64,300	67,100	64,900	59,100	55,400
Bristol Area 1/					
Construction	1,300	1,400	1,300	1,100	1,000
General Building Contractors	400	500	400	400	300
Heavy Construction Contractors	400	300	300	200	200
Special Trade Contractors	500	600	600	500	500
Lynchburg Metropolitan Area 2/					
Construction	3,600	3,500	3,300	3,000	2,700
General Building Contractors	1,300	1,100	1,000	1,000	900
Heavy Construction Contractors	400	500	600	500	500
Special Trade Contractors	1,900	1,900	1,700	1,500	1,300
Newport News-Hampton Metropolitan Area 3/					
Construction	7,200	7,500	7,500	6,200	6,500
General Building Contractors	2,900	2,900	2,800	2,000	2,400
Heavy Construction Contractors	900	1,000	1,000	900	900
Special Trade Contractors	3,400	3,600	3,700	3,300	3,200
Norfolk-Virginia Beach-Portsmouth Metropolitan Area 4/					
Construction	15,900	17,800	18,300	16,600	15,200
General Building Contractors	3,200	4,200	4,400	3,800	3,300
Heavy Construction Contractors	3,500	4,000	4,000	3,800	3,500
Special Trade Contractors	9,200	9,600	9,900	9,000	8,400
Northern Virginia Area 5/					
Construction	27,300	30,200	29,600	25,800	24,100
General Building Contractors	8,300	9,100	8,800	7,300	6,700
Heavy Construction Contractors	4,100	4,200	4,000	3,500	4,100
Special Trade Contractors	14,900	16,900	16,800	15,000	13,300
Petersburg-Colonial Heights-Hopewell Metropolitan Area 6/					
Construction	3,100	2,500	2,400	2,300	2,200
General Building Contractors	1,400	900	700	700	600
Heavy Construction Contractors	400	400	400	400	300
Special Trade Contractors	1,300	1,200	1,300	1,200	1,300
Richmond Metropolitan Area 7/					
Construction	16,800	19,000	19,000	17,100	16,000
General Building Contractors	3,700	4,700	4,600	4,300	3,700
Heavy Construction Contractors	3,500	3,400	3,000	2,400	2,400
Special Trade Contractors	9,600	10,900	11,400	10,400	9,900
Roanoke Metropolitan Area 8/					
Construction	6,200	6,200	5,900	5,700	5,400
General Building Contractors	1,400	1,500	1,300	1,300	1,400
Heavy Construction Contractors	1,600	1,600	1,600	1,500	1,400
Special Trade Contractors	3,200	3,100	3,000	2,900	2,600

Estimates include all full-time and part-time wage and salary workers who worked during or received pay for the period including the twelfth of the month.

1/ The Bristol, Virginia Metropolitan Area covers the city of Bristol and the counties of Scott and Washington.

2/ The Lynchburg Standard Metropolitan Statistical Area covers the city of Lynchburg and the counties of Amherst, Appomattox and Campbell.

3/ The Newport News-Hampton Standard Metropolitan Statistical Area covers the cities of Newport News, Hampton, Poquoson and Williamsburg and the counties of James City, York and Gloucester.

4/ The Norfolk-Virginia Beach-Portsmouth Standard Metropolitan Statistical Area covers the cities of Chesapeake, Norfolk, Portsmouth, Suffolk, and Virginia Beach, Virginia and the county of Currituck, North Carolina.

5/ The Northern Virginia Metropolitan Area covers the cities of Alexandria, Fairfax, Falls Church, Manassas, and Manassas Park and the counties of Arlington, Fairfax, Loudoun, and Prince William.

6/ The Petersburg-Colonial Heights-Hopewell Standard Metropolitan Statistical Area covers the cities of Petersburg, Colonial Heights, and Hopewell and the counties of Dinwiddie and Prince George.

7/ The Richmond Standard Metropolitan Statistical Area covers the city of Richmond and the counties of Charles City, Chesterfield, Goochland, Hanover, Henrico, New Kent, and Powhatan.

8/ The Roanoke Standard Metropolitan Statistical Area covers the cities of Roanoke and Salem and the counties of Botetourt, Craig, and Roanoke.

DIVISION OF

VOLUNTARY COMPLIANCE AND TRAINING

The Division of Voluntary Compliance and Training was established in March of 1977 as a result of an agreement with the U. S. Department of Labor, as provided for in Section 7(c)(1) and 18(b) of Public Law 91-596, The Occupational Safety and Health Act.

The 7(c)(1) agreement provides on-site consultation upon request of the employer, independent of any federal or state enforcement agency. In 1980, requests for consultative services increased by 40%. Both the number of safety hazards identified and the number of serious hazards requiring abatement decreased 34% and 31% respectively. These reductions can be attributed to employers requesting consultative services for a second time, or on a continuing basis.

Promotion of the program continues through in-person visits to the workplace and participation at employer conferences and seminars. The number of employers requesting these services continues to increase, and during 1980, 20,900 employees were assured a safer workplace with 1,066 serious conditions which could have caused death or serious physical harm voluntarily abated.

Virginia's private sector incidence rate continued to remain lower than the incidence rate of the Nation. It should be noted that the private sector incidence rate for the State decreased from 8.9 to 8.6 in 1979. The two factors are indicative of the effectiveness of this program.

The Voluntary Compliance and Training 18(b) safety program provided employers and employees in both the public and private sectors with 120 safety courses and programs in the recognition and correction of unsafe conditions.

As the result of 303 consultative visits (49 of which were conducted in the public sector), 250 consultations and 214 safety related programs, unsafe conditions were identified and corrected in a cooperative atmosphere. The loss of production, materials, and equipment was eliminated, providing 39,700 workers with a safe workplace.

Information on safety was provided to countless employers/employees who visited our booth at the Virginia Safety Association's 1980 conference in Roanoke. Our staff continued to participate in Regional Safety Conferences in Salem, Lexington, and Wytheville. In-service training was provided for State Compliance Inspectors in their assigned areas.

During the year, 2,130 safety films were loaned on request. Through the viewing of these films, 54,600 employers and employees were encouraged to build upon advances already made in their safety and health programs.

In summary, assistance was provided to employers and employees to initiate new and perfect their existing programs. The Division continued to improve on-the-job safety by introducing new training techniques, identifying hazards through on-site consultative visits and providing technical assistance in their abatement.

ANALYSIS OF ACTIVITIES OF THE VOLUNTARY COMPLIANCE & TRAINING DIVISION FOR THE YEAR 1980

Item	Accomplishments	Persons Affected
Consultative Visits Made	303	33,220
Safety Hazards Noted	4,015	27,604
Serious Hazards Abated	1,066	20,900
Conferences held other than during Consultative Visits	551	564
Safety Courses (Construction and Industrial)	36	1,162
Demonstrations/Safety Talks	86	2,281
Speeches/Seminars	92	2,829
Showing of 294 Safety Films loaned by Richmond Office	2,130	54,600

OCCUPATIONAL INJURIES AND ILLNESSES, 1979

Incidence rates

During 1979, an average of 1 in every 12 workers in the private economy experienced a job-related injury or illness caused by exposure to hazards in the work environment. This translates into an incidence rate of 8.6 injuries and illnesses per 100 full-time workers during the year. The estimates encompass job-related cases resulting in death, diagnosed illnesses, and most injuries requiring more than minor first-aid treatment. They represent the experience of over 1.6 million workers in the private sector of the Virginia economy. Self-employed individuals and farms with fewer than 11 employees are not included in the estimates.

The incidence rate of 8.6 experienced in 1979 showed a decrease of 3 percent from the 1978 rate of 8.9. In terms of hours of exposure on the job, 1 injury or illness was recorded for every 23,200 hours worked in 1979, the comparable ratio for 1978 was 1 case for every 22,400 hours.

Incidence rates for the major industry divisions ranged from 16.1 in construction to 2.2 in finance, insurance, and real estate in 1979. Goods-producing industries (agriculture, forestry, and fishing; mining; construction; and manufacturing) experienced higher injury and illness rates than service-producing industries (transportation and public utilities; wholesale and retail trade; finance, insurance, and real estate; and services).

Number of injuries and illnesses

There were about 119,400 work-related injuries and illnesses in 1979. This represented a slight decrease from the 119,500 cases experienced during 1978. However, during this period, there was a 3 percent increase in employment.

Manufacturing, transportation and public utilities, and wholesale and retail trade, with about 59 percent of total private sector employment, had 69 percent of all private sector injuries and illnesses. Construction industries, with 8 percent of employment, had 16 percent of injuries and illnesses. On the other hand, finance, insurance, and real estate and services industries had 29 percent of employment and only 12 percent of injuries and illnesses.

Worktime lost

Worktime lost includes both days away from work and days of restricted work activity. The data for cases which involve days away from work include those which result in days away from the job, or both days away from work and days of restricted work activity. On the other hand, the data for cases which involve restricted work activity include only those which result solely in restricted work activity (the employee was on the job but could not perform all duties of the job).

The rate for cases involving days away from work was 3.6, while the rate for cases involving restricted work activity only was 0.4. Construction industries had the highest rate of cases involving days away from work — 7.2; finance, insurance, and real estate had the lowest — 0.9. Manufacturing had the highest rate of cases involving restricted work activity — 0.8 cases per 100 full-time workers.

Nearly 90 percent of the 55,600 lost workday injuries and illnesses resulted in days away from work. The remaining 10 percent involved days of restricted work activity only.

ILLNESSES, 1979

Occupational illnesses include any abnormal condition or disorder, other than one resulting from an occupational injury, caused by exposure to environmental factors associated with employment. The incidence of occupational illnesses measured by the annual survey refers to the number of new illnesses occurring during a year, and does not measure continuing conditions of illness reported in previous surveys. Cases are recorded only in the year in which they are diagnosed and recognized as work-related.

The recording and reporting of illnesses continue to present some measurement problems since employers (and even doctors) are often unable to recognize some illness as being work-related. The annual survey includes data on only current and visible illnesses of workers; it does not include data on illnesses which might surface later. To the extent that occupational illnesses are unrecognized and therefore, unreported, the survey estimates understate their occurrence.

Incidence rates

Occupational illnesses occurred at a rate of 0.3 per 100 full-time workers, or about 3 cases per 1,000 employees in the private sector in 1979. Illness incidence rates ranged from 0.1 per 100 full-time workers in mining, construction, and finance, insurance, and real estate to 0.4 per 100 full-time workers in transportation and public utilities. Although manufacturing did not experience the highest illness incidence rate (0.3) among the eight industry divisions, it had the highest illness incidence rate of lost workdays (1.5) — a measure of severity.

Number of illnesses

During 1979, private sector workers experienced over 3,500 new cases of occupational illnesses — down 14 percent from 1978. Illnesses comprised only 3 percent of total cases reported. The manufacturing industries experienced 40 percent of the illness cases. Skin diseases or disorders continued to account for a disproportionately large percentage of illnesses — 61 percent in 1979 and 42 percent in 1978. This is largely because they are more readily observable than other occupational illnesses.

OCCUPATIONAL INJURY AND ILLNESS INCIDENCE RATES, PRIVATE SECTOR, BY INDUSTRY, VIRGINIA
1978 and 1979 1/

Industry 2/	SIC code 3/	1979 annual average employment (in thousands) 4/	Incidence rates per 100 full-time workers 5/							
			Total cases 6/		Lost workday cases		Nonfatal cases without lost workdays		Lost workdays	
			1978	1979	1978	1979	1978	1979	1978	1979
Private sector 7/		1,626.8	8.9	8.6	3.9	4.0	5.0	4.6	57.9	59.8
Agriculture, forestry, and fishing 7/		28.9	11.0	9.7	5.8	5.7	5.2	4.0	60.0	39.2
Agricultural production	01-02	22.0	13.4	10.1	7.6	4.2	5.7	5.9	52.9	49.1
Agricultural services	07	n/a	10.2	10.2	5.0	6.9	5.2	3.3	45.7	36.2
Mining 8/		24.2	10.0	10.6	8.1	8.9	1.8	1.6	185.7	199.1
Metal mining 8/	10	n/a	15.8	18.7	10.1	14.7	5.7	4.0	168.9	132.9
Bituminous coal and lignite mining 8/	12	20.7	11.7	12.0	9.9	10.3	1.7	1.6	233.6	237.6
Nonmetallic minerals, except fuels 8/	14	2.9	5.2	5.9	3.1	4.1	2.0	1.7	66.6	83.2
Construction		135.4	17.2	16.1	7.0	7.4	10.1	8.7	124.2	126.8
General building contractors	15	44.2	15.4	15.6	6.1	7.3	9.3	8.3	110.0	127.4
Residential building construction	152	n/a	12.1	-	5.7	-	6.4	-	119.6	-
Operative builders	153	n/a	14.4	16.4	4.9	7.2	9.5	9.2	56.3	113.4
Nonresidential building construction	154	n/a	19.6	20.2	6.9	8.8	12.7	11.4	118.9	131.6
Heavy construction contractors	16	24.1	19.6	17.1	7.4	7.3	12.1	9.8	142.7	116.0
Highway and street construction	161	n/a	15.8	15.0	6.6	5.5	9.1	9.5	110.9	83.4
Heavy construction, except highway	162	n/a	21.6	18.3	7.8	8.3	13.8	10.0	160.9	133.4
Special trade contractors	17	67.1	17.0	16.0	7.2	7.7	9.7	8.3	124.4	131.8
Plumbing, heating, and air conditioning	171	n/a	19.9	16.7	6.2	7.3	13.7	9.4	104.9	119.4
Painting, paperhanging, and decorating	172	n/a	8.1	-	4.9	-	3.2	-	97.1	-
Electrical work	173	n/a	15.8	13.4	5.6	5.9	10.1	7.5	75.0	72.3
Masonry, stonework, and plastering	174	n/a	14.6	-	7.5	-	7.1	-	127.2	-
Carpentering and flooring	175	n/a	16.8	-	9.8	-	6.2	-	270.2	-
Miscellaneous special tradecontractors	179	n/a	17.2	14.1	7.8	6.1	9.3	7.9	133.0	98.5
Manufacturing		413.1	12.1	11.4	5.0	5.0	7.1	6.4	69.6	75.0
Food and kindred products	20	41.0	16.0	15.8	7.8	8.4	8.2	7.4	103.0	114.3
Meat products	201	12.7	17.8	18.0	9.8	10.7	8.0	7.3	123.5	160.8
Meatpacking plants	2011	n/a	20.3	20.4	11.6	12.9	8.7	7.5	131.1	176.8
Poultry dressing plants	2016	n/a	16.0	14.5	8.1	8.1	7.9	6.4	121.4	161.1
Bakery products	205	5.0	12.6	11.4	6.1	5.8	6.5	5.6	104.6	87.4
Bread, cake, and related products	2051	n/a	12.7	12.3	5.8	5.9	6.9	6.4	96.1	91.5
Beverages	208	5.5	23.2	25.3	9.8	12.4	13.4	12.9	105.0	152.7
Bottled and canned soft drinks	2086	n/a	22.8	24.9	9.8	13.0	13.0	11.9	104.0	162.7
Miscellaneous food and kindred products	209	n/a	11.0	8.6	5.1	4.1	5.9	4.5	74.8	45.5
Fresh or frozen packaged fish	2092	n/a	8.7	5.7	4.4	2.8	4.3	2.9	49.9	31.9
Textile mill products	22	44.6	9.1	8.7	3.3	3.3	5.8	5.4	45.3	46.0
Weaving mills, cotton	221	n/a	8.7	-	1.7	-	7.0	-	45.4	-
Weaving mills, synthetics	222	n/a	8.2	10.4	2.6	2.7	5.6	7.7	38.8	36.0
Knitting mills	225	12.8	9.0	8.7	3.8	4.2	5.2	4.5	39.4	38.4
Textile finishing, except wool	226	5.3	11.6	8.6	4.4	4.3	7.2	4.3	50.7	62.3
Apparel and other textile products	23	34.7	6.8	6.4	2.2	2.1	4.6	4.3	33.0	35.1
Men's and boys' furnishings	232	n/a	7.5	7.0	2.3	2.6	5.2	4.4	38.7	43.1
Men's and boys' shirts and nightwear	2321	n/a	4.8	3.8	1.4	1.1	3.4	2.7	15.6	9.8
Men's and boys' work clothing	2328	n/a	12.3	12.5	4.3	5.0	8.0	7.5	77.9	83.8
Women's and misses' outerwear	233	n/a	6.3	5.5	2.1	1.6	4.2	3.9	23.8	24.2
Women's and misses' outerwear, n.e.c.	2339	n/a	5.9	6.0	2.0	1.8	3.9	4.2	28.2	22.7
Children's outerwear	236	n/a	5.1	8.0	1.7	1.8	3.4	6.2	36.8	50.8
Lumber and wood products	24	24.9	16.6	16.0	7.6	7.9	9.0	8.1	117.9	125.0
Sawmills and planing mills	242	n/a	14.3	15.4	7.2	7.7	7.1	7.7	140.7	142.0
Millwork, plywood, and structural members	243	6.6	16.5	15.1	6.9	7.1	9.6	8.0	79.2	95.4
Furniture and fixtures	25	27.4	13.3	12.3	4.0	4.0	9.3	8.3	69.6	58.8
Household furniture	251	n/a	13.0	11.8	3.6	3.6	9.4	8.2	65.3	56.7
Wood household furniture	2511	n/a	12.8	11.3	3.5	3.4	9.3	7.9	65.3	59.8
Paper and allied products	26	14.5	11.6	11.6	3.9	4.7	7.7	6.9	73.3	75.3
Paperboard mills	263	n/a	5.4	5.3	.9	1.1	4.5	4.2	42.3	20.5
Printing and publishing	27	21.0	8.0	8.5	3.4	3.6	4.6	4.9	34.4	57.0
Newspapers	271	n/a	6.4	7.3	2.8	3.0	3.6	4.3	30.7	53.0
Commercial printing	275	8.0	9.7	10.9	4.4	4.5	5.3	6.4	41.8	73.6
Chemicals and allied products	28	34.4	4.2	4.1	1.6	1.4	2.6	2.7	26.8	21.8
Rubber and miscellaneous plastics products	30	n/a	16.2	12.0	8.1	6.7	8.1	5.3	131.4	135.5
Miscellaneous plastics products	307	5.9	14.5	10.7	5.5	4.5	9.0	6.2	64.7	65.0
Leather and leather products	31	n/a	9.7	-	2.7	-	7.0	-	49.9	-
Stone, clay, and glass products	32	13.4	20.0	16.3	8.2	8.5	11.8	7.8	138.0	130.9
Concrete, gypsum, and plaster products	327	7.6	16.3	14.1	6.8	8.4	9.4	5.7	126.7	130.4
Primary metal industries	33	13.4	14.4	17.2	7.4	7.7	7.0	9.5	101.5	111.0
Iron and steel foundries	332	n/a	17.3	-	10.2	-	7.1	-	127.0	-
Nonferrous rolling and drawing	335	n/a	7.2	-	3.6	-	3.6	-	57.1	-
Fabricated metal products	34	20.8	19.6	20.1	8.0	8.9	11.6	11.2	108.9	116.5
Fabricated structural metal products	344	13.1	18.1	22.4	7.5	10.4	10.6	12.0	110.4	134.3
Machinery, except electrical	35	15.1	12.1	10.4	4.8	4.6	7.3	5.8	53.9	56.4
Construction and related machinery	353	4.7	16.2	11.9	8.3	6.3	7.9	5.6	68.3	69.4
Electric and electronic equipment	36	33.1	7.5	6.6	2.9	2.8	4.6	3.8	39.6	41.9
Electrical industrial apparatus	362	n/a	7.0	-	2.2	-	4.8	-	26.8	-
Industrial controls	3622	n/a	5.8	-	.9	-	4.9	-	17.5	-
Radio and TV receiving equipment	365	n/a	8.4	-	4.3	-	4.1	-	60.2	-
Communication equipment	366	11.3	5.0	5.6	2.7	3.3	2.3	2.3	45.3	50.7
Radio and TV communication equipment	3662	n/a	3.4	-	1.3	-	2.1	-	19.9	-
Electronic components and accessories	367	5.3	7.0	4.3	.9	1.3	6.1	3.0	9.2	20.8
Instruments and related products	38	3.7	11.5	6.8	2.5	1.6	9.0	5.2	27.1	23.0
Miscellaneous manufacturing industries	39	n/a	12.4	-	4.4	-	8.0	-	46.9	-

OCCUPATIONAL INJURY AND ILLNESS INCIDENCE RATES, PRIVATE SECTOR, BY INDUSTRY, VIRGINIA, 1978 and 1979 1/, continued

Industry 2/	SIC code 3/	1979 annual average employment (in thousands) 4/	Incidence rates per 100 full-time workers 5/							
			Total cases 6/		Lost workday cases		Nonfatal cases without lost workdays		Lost workdays	
			1978	1979	1978	1979	1978	1979	1978	1979
Transportation and public utilities		114.3	8.1	8.8	4.7	5.2	3.4	3.6	89.1	91.8
Railroad transportation 8/	40	14.6	9.7	10.6	5.3	5.3	4.4	5.3	84.0	80.9
Local and interurban passenger transit	41	5.9	7.4	9.3	4.6	6.5	2.8	2.8	51.2	64.4
Trucking and warehousing	42	29.9	11.2	11.7	7.0	7.4	4.2	4.3	137.2	140.6
Trucking, local and long distance	421	n/a	11.5	11.9	7.2	7.6	4.3	4.3	140.6	144.4
Water transportation	44	6.1	25.2	24.8	13.5	12.3	11.7	12.4	463.3	473.7
Water transportation services	446	n/a	29.1	30.7	15.8	15.6	13.3	15.0	595.9	577.3
Transportation by air	45	11.2	12.8	13.1	8.0	8.3	4.5	4.8	94.0	101.8
Communication	48	27.3	1.5	1.8	.7	1.0	.8	.8	10.4	11.2
Wholesale and retail trade		439.9	7.4	7.9	3.1	3.5	4.4	4.4	40.9	40.9
Wholesale trade		101.7	7.8	8.6	3.9	4.2	3.9	4.4	43.9	45.4
Wholesale trade - durable goods	50	62.4	6.5	8.1	3.0	3.8	3.5	4.3	30.2	41.6
Wholesale trade - nondurable goods	51	39.3	9.9	9.3	5.3	4.7	4.6	4.6	66.5	51.6
Retail trade		338.2	7.3	7.5	2.8	3.2	4.5	4.3	39.9	39.3
Building materials and garden supplies	52	13.6	13.3	11.3	6.7	5.7	6.6	5.6	79.9	56.3
General merchandise stores	53	57.2	10.0	8.4	3.9	3.3	6.1	5.1	48.8	35.9
Food stores	54	51.0	8.4	8.8	3.7	4.4	4.7	4.4	48.0	85.3
Automotive dealers and service stations	55	48.6	7.2	8.0	2.6	2.8	4.6	5.2	43.8	44.9
Apparel and accessory stores	56	n/a	.7	-	.4	-	.3	-	8.5	-
Furniture and home furnishings stores	57	16.1	6.2	4.8	3.0	2.5	3.2	2.3	30.6	30.6
Eating and drinking places	58	90.9	7.0	9.2	1.8	3.9	5.2	5.3	31.9	25.3
Miscellaneous retail	59	42.4	4.2	3.4	1.7	1.4	2.5	2.0	28.5	14.0
Finance, insurance and real estate		103.3	1.8	2.2	.8	.9	1.0	1.3	10.1	18.3
Banking	60	30.3	.8	1.1	.3	.4	.5	.7	4.2	6.0
Credit agencies other than banks	61	12.2	1.2	.9	.4	.5	.8	.4	2.8	2.0
Insurance carriers	63	19.6	1.2	2.5	.5	.8	.7	1.7	8.8	37.4
Insurance agents, brokers and service	64	8.0	.5	1.0	.2	.4	.3	.6	6.6	12.8
Real estate	65	23.9	5.0	4.8	2.5	2.4	2.5	2.4	27.0	30.3
Holding and other investment offices	67	7.2	.9	1.6	.4	.6	.5	1.0	3.7	17.9
Services		367.7	4.9	4.3	2.2	2.0	2.7	2.3	28.1	26.4
Hotels and other lodging places	70	27.7	6.6	6.6	2.8	2.7	3.8	3.9	32.5	26.9
Personal services	72	24.2	2.5	2.7	1.2	1.3	1.3	1.4	13.7	9.9
Business services	73	72.8	3.3	3.6	1.7	1.7	1.6	1.9	16.9	17.9
Auto repair, services, and garages	75	12.6	4.7	8.6	2.1	4.4	2.6	4.2	50.4	79.2
Miscellaneous repair services	76	5.5	8.1	5.0	3.0	2.7	5.1	2.3	44.2	96.2
Amusement and recreation services	79	13.1	10.7	3.2	5.6	1.8	5.1	1.4	67.2	18.7
Health services	80	97.1	6.9	6.1	2.8	2.8	4.1	3.3	32.2	34.3
Legal services	81	9.2	.4	.2	.3	.2	.1	*	9.5	8.7
Educational services	82	20.1	4.1	4.0	1.9	1.4	2.2	2.6	18.4	19.7
Social services	83	18.2	4.5	3.3	2.1	1.2	2.4	2.1	34.6	17.0
Membership organizations	86	39.0	1.9	1.6	.8	1.1	1.1	.5	12.3	18.1
Miscellaneous services	89	22.2	2.0	1.8	1.0	.8	1.0	1.0	35.5	24.0

1/ In order to maintain the comparability of 1979 survey data with the data published in previous years, a statistical method was developed for generating the 1979 estimates to represent the small nonfarm employers in low-risk industries which were not surveyed. The estimating procedure involved averaging the data reported by small employers for the 1975, 1976, and 1977 annual surveys.

2/ Totals for divisions and 2- and 3-digit SIC codes include data for industries not shown separately.

3/ Standard Industrial Classification Manual, 1972 Edition

4/ Annual average employment for nonagricultural industries is based on the employment and earnings survey conducted by the Bureau of Labor Statistics, in cooperation with the State agencies. The employment estimate for the services division is adjusted to exclude the employment for (a) nonfarm portion of agricultural services and (b) nonclassifiable establishments. Annual average employment for the Agricultural, forestry, and fishing division is a composite of data from State unemployment insurance programs, and estimates of hired farm workers engaged in agricultural production provided by the U. S. Department of Agriculture. The agricultural production employment estimate as originally published by the Department of Agriculture is adjusted to exclude employment on farms with fewer than 11 employees.

5/ The incidence rates represent the number of injuries and illnesses or lost workdays per 100 full-time workers and were calculated as: (N/EH) X 200,000, where
N = number of injuries and illnesses or lost workdays
EH = total hours worked by all employees during calendar year
200,000 = base for 100 full-time equivalent workers (working 40 hours per week, 50 weeks per year).

6/ Includes fatalities. Because of rounding, the difference between the total and the sum of the rates for lost workday cases and nonfatal cases without lost workdays do not reflect the fatality rate.

7/ Excludes farms with fewer than 11 employees.

8/ Data conforming to OSHA definition for coal and lignite mining (SIC 11 and 12) and metal and nonmetal mining (SIC 10 and 14), and for railroad transportation (SIC 40) were provided by the Mine Safety and Health Administration, U. S. Department of Labor, and by the Federal Railroad Administration, U. S. Department of Transportation.

NOTE: Dashes indicate data that do not meet publication guidelines.
n.e.c. = not elsewhere classified
n/a = data not available
* = incidence rates less than .05

SOURCE: The Virginia Department of Labor and Industry in cooperation with the U. S. Department of Labor, Bureau of Labor Statistics.

DIVISION OF

RESEARCH AND STATISTICS

The Division of Research and Statistics is charged primarily with the functions of collecting, presenting, analyzing, and interpreting statistical data in various economic fields.

Industrial employment information on a national, state, and area basis is provided from a cooperative Federal-State Employment Statistics Program. Full and complete statistics of the volume of and change in employment, as indicated by the number of persons employed in the State and eight of the larger metropolitan areas, are published each month. These data are maintained on a continuous basis and reflect industry trends as well as cyclical and seasonal fluctuations. Average weekly hours and average hourly and weekly earnings are also prepared for the manufacturing industries. To better measure current earnings available for spending, a series of spendable weekly earnings is developed. Monthly and yearly analyses are made of the industry changes. For two of the metropolitan areas, union scales of wages in the building trades are published quarterly. This study includes data for journeymen and helper classifications.

This agency in cooperation with the U. S. Department of Labor provides statistics regarding the incidence and causes of occupational injuries and illnesses; and provides the information needed to effectively manage, administer, control, and enforce occupational safety and health standards including scheduling of inspections.

A survey of retail food prices is conducted monthly for the Norfolk-Virginia Beach-Portsmouth, Northern Virginia, and the Richmond Standard Metropolitan Statistical Areas. A report for each area is compiled reflecting the price change in the retail cost of numerous items of food. Also, a market basket is published which depicts the cost of a fixed quantity of selected basic foods.

Statistical data pertaining to coal mining and quarry operations in Virginia are collected and released annually. Factual information such as tonnage, coal resources, employment, salaries and wages, methods of mining, and injury and fatality rates are developed. In addition, a summary of oil and gas activities is compiled. A review is published quarterly of fatalities occurring in coal mines and quarries, which also includes news and information relative to safety in coal mining and quarrying.

A survey of manufactures is conducted annually for Virginia and five of the larger metropolitan areas which presents important economic indicators such as employment, salaries and wages, value added by manufactures, capital expenditures and export market information.

Apprentice and system or firm data for the Virginia Apprenticeship Program are processed into machine tabulations, providing certain selected data periodically on a State and National level.

The other Divisions of the Department are assisted in planning and compiling statistics, and in the development of working forms. The Department's Annual Report is assembled and published by this Division. Statistical analyses for industrial information are furnished to business, research organizations, governmental agencies, economists, libraries and others.

Periodic tabulations needed by the different Divisions are prepared by the Division of Automated Data Processing but coordinated by this Division.

The printing section under this Division is responsible for all of the offset duplicating work of the Department, e.g., books, circulars, posters, releases, forms, etc.

COMMONWEALTH OF VIRGINIA

The economy of Virginia forged ahead during 1980 but at a slackened pace. In a year that was marked by inflation, high interest rates, a severe slump in construction and a downturn in the automobile industry, Virginians as a whole fared better than most. Many troublesome areas of the nation's economy were in evidence in Virginia but a broad-based economic structure was the key to softening the impact of downturns in the business community. While over-the-year gains were recorded in employment, they were, nevertheless, much smaller than had been experienced since the recessionary year of 1975. All goods-producing industries recorded losses statewide between 1979 and 1980 while gains were made by all service-producing segments. At the national level the same trends held in every category, except mining. The rise in the state's unemployment rate also followed the nation's trend. However, Virginia's rise of four-tenths percent from 4.7 percent in 1979 to 5.1 percent in 1980 was much less severe than the nation's increase of 1.3 percent. The U. S. rate in 1979 was 5.8 percent and 7.1 percent a year later.

Manufacturing worker totals account for approximately 20 percent of all nonagricultural employment in the Commonwealth as compared to 22 percent for the nation. Averaging 410,500 in 1980 manufacturing employment in Virginia was 2,600 below year-ago levels. This was a six-tenths of a percent decline while the nation's over-the-year drop was 3.3 percent. The bulk of both declines was centered in the durable goods division. Reductions occurred primarily in businesses engaged in or related to home construction and automobiles. Lumber and wood products, stone, clay and glass products, and fabricated metal products were slowed by cutbacks in the construction of new homes. This also put restraints on the furniture and fixtures industry and hampered growth in the electric and electronic equipment group. Curtailed auto sales resulted in cutbacks by primary metals and transportation equipment. Labor disputes in shipyards during 1979 lowered averages for that year so the 2,000 over-the-year rise in 1980 does not represent that much growth for the industry. Demand for instruments and related products allowed for an 8.1 percent increase in workforce.

While nondurable goods producers recorded an overall gain, they too had some trouble spots. Biggest losses occurred in chemicals and allied products and in rubber and miscellaneous plastics products. Manufacturers of tires and synthetic fibers used in making tires, as well as other chemical and rubber products, made retrenchments in production. In part slackness was attributed to dismal auto sales. Textile mill products plants that supply seat belts and other fabrics for cars felt the pinch and this segment saw only a very small rise in employment. Apparel and other textile products firms were able to maintain year-ago levels despite subdued demand for home furnishings. Demand for printed products continued to grow as the 900 increase in worker totals indicates. Even though an extremely hot, dry summer hampered growth of fruits, vegetables, tobacco and especially peanuts, resulting in significantly smaller crops than in some previous years, employment rises in food and kindred products and tobacco manufactures had a beneficial impact on nondurable goods.

Virginia's factory production-worker work force averaged 314,800 — 4,000 less than in the previous year. Average weekly earnings rose to $244.48 for 1980, a gain of $22.92. Traditionally durable-goods workers earned more and their yearly increases surpassed nondurable-goods personnel; but this year the gap was narrowed. For the first time in many years nondurable-goods increase (+ $26.04) was greater than durable goods (+ $20.59). Average hourly earnings for all production workers rose from $5.58 in 1979 to $6.22 in 1980. In this same time frame the average workweek dropped four-tenths of an hour from 39.7 hours to 39.3 hours. During the first five months of the year the average workweek declined every month. However, during the last half of the year the workweek exerted stronger upward pressures and rose every month.

ESTIMATED EMPLOYMENT IN VIRGINIA NONAGRICULTURAL ESTABLISHMENTS, BY MAJOR INDUSTRY DIVISIONS

ANNUAL AVERAGES 1976 - 1980

INDUSTRY GROUP	EMPLOYMENT (In Thousands of Employees)					Percent Change From 1976 - 1980
	1980	1979	1978	1977	1976	
NONAGRICULTURAL 1/	2,120.9	2,098.4	2,033.5	1,930.8	1,848.1	14.8
MANUFACTURING	410.5	413.1	409.4	400.8	387.7	5.9
Durable Goods	187.2	190.1	187.9	179.9	171.5	9.2
Lumber and Wood Products	23.3	24.9	24.0	22.6	21.4	8.9
Millwork, Plywood and Structural Members	6.3	6.6	6.2	6.1	5.5	14.5
Wood Containers	1.8	1.9	1.7	1.6	1.4	28.6
Wood Buildings and Mobile Homes	3.2	3.5	3.1	2.8	2.4	33.3
Miscellaneous Wood Products	2.1	2.2	2.2	2.4	2.4	- 12.5
Furniture and Fixtures	25.8	27.4	27.8	26.0	25.4	1.6
Household and Office Furniture	24.3	25.9	26.2	24.4	24.2	.4
Stone, Clay and Glass Products	12.7	13.4	12.9	12.7	12.0	5.8
Structural Clay Products	.9	1.0	1.0	.9	.8	12.5
Concrete, Gypsum, and Plaster Products	7.3	7.6	7.2	6.8	6.4	14.1
Glass and Glass Products	1.7	1.6	1.5	1.5	1.5	13.3
Primary Metal Industries	12.2	13.4	13.0	12.4	11.6	5.2
Fabricated Metal Products	20.7	20.8	19.7	18.0	17.1	21.0
Fabricated Structural Metal Products	13.1	13.1	12.6	12.2	11.6	12.9
Machinery, except Electrical	15.3	15.1	14.5	13.8	13.6	12.5
Construction and Related Machinery	4.6	4.7	4.7	4.4	4.1	12.2
Special Industry Machinery	2.4	2.5	2.4	2.4	2.6	- 7.7
Refrigeration and Service Machinery	1.9	2.1	2.1	2.0	1.9	0
Electric and Electronic Equipment	33.2	33.1	32.0	30.9	30.3	9.6
Communication Equipment	11.4	11.3	10.4	8.7	7.5	52.0
Electronic Components and Accessories	5.4	5.3	5.4	5.7	5.6	- 3.6
Transportation Equipment	36.5	34.5	36.8	36.3	33.2	9.9
Instruments and Related Products	4.0	3.7	3.5	3.4	3.2	25.0
Miscellaneous Manufacturing Industries	3.5	3.8	3.7	3.8	3.7	- 5.4
Nondurable Goods	223.3	223.0	221.5	220.9	216.2	3.3
Food and Kindred Products	41.8	41.0	39.7	39.4	38.7	8.0
Meat Products	13.4	12.7	12.1	12.1	11.7	14.5
Dairy Products	2.6	2.5	2.6	2.7	2.9	- 10.3
Preserved Fruits and Vegetables	3.7	4.4	4.1	3.6	3.7	0
Bakery Products	5.0	5.0	5.3	5.5	5.4	- 7.4
Beverages	5.6	5.5	5.2	5.2	4.8	16.7
Tobacco Manufactures	16.5	16.2	16.0	16.0	16.6	- .6
Cigarettes	13.9	13.6	13.2	12.8	13.3	4.5
Cigars and Chewing and Smoking Tobacco	.4	.4	.4	.5	.5	- 20.0
Tobacco Stemming and Redrying	2.2	2.2	2.4	2.7	2.8	- 21.4
Textile Mill Products	44.7	44.6	44.7	44.7	43.4	3.0
Weaving Mills, Cotton, Synthetics and Wool	18.9	18.6	18.5	19.9	20.2	- 6.4
Narrow Fabric Mills	1.2	1.4	1.5	1.4	1.3	- 7.7
Knitting Mills	13.7	12.8	12.8	12.3	11.4	20.2
Textile Finishing, except Wool	4.9	5.3	5.7	5.2	4.8	2.1
Yarn and Thread Mills	3.1	3.3	3.2	3.2	2.9	6.9
Miscellaneous Textile Goods	1.3	1.4	1.4	1.4	1.3	0
Apparel and Other Textile Products	34.7	34.7	36.4	36.9	37.3	- 7.0
Men's and Boys' Suits, Coats and Furnishings	13.5	13.3	14.5	14.5	13.9	- 2.9
Women's and Children's Outerwear and Undergarments	17.3	17.5	18.1	18.5	19.6	- 11.7
Miscellaneous Fabricated Textile Products	1.7	1.7	1.7	1.8	1.8	- 5.6
Paper and Allied Products	14.6	14.5	14.1	14.0	13.5	8.1
Pulp, Paper and Paperboard Mills	7.7	7.5	7.4	7.5	7.5	2.7
Miscellaneous Converted Paper and Paperboard Products, Containers and Boxes	6.2	6.3	6.1	5.9	5.6	10.7
Miscellaneous Converted Paper Products	2.5	2.8	2.7	2.5	2.2	13.6
Paperboard Containers and Boxes	3.7	3.5	3.4	3.4	3.4	8.8
Printing and Publishing	21.9	21.0	19.9	18.8	17.4	25.9
Newspapers and Periodicals	8.4	8.0	7.7	7.5	7.4	13.5
Commercial Printing	8.2	8.0	7.5	6.7	6.2	32.2
Chemicals and Allied Products	33.3	34.4	33.9	34.0	33.7	- 1.2
Industrial Inorganic Chemicals	.8	.8	1.5	1.9	1.2	- 33.3
Plastics Materials and Synthetics	19.9	21.2	20.7	20.9	21.5	- 7.4
Drugs	2.7	2.6	2.6	2.3	1.9	42.1
Agricultural Chemicals	1.7	1.7	1.7	1.8	1.8	- 5.6
Miscellaneous Chemical Products	3.3	3.1	3.1	3.0	2.7	22.2
Petroleum, Rubber and Miscellaneous Plastics Products	12.2	12.8	12.8	13.1	11.2	8.9
Miscellaneous Plastics Products	5.7	5.9	6.1	6.7	6.0	- 5.0
Rubber and Rubber Products	6.2	6.6	6.4	6.2	4.9	26.5
Leather and Leather Products	3.6	3.8	4.0	4.0	4.4	- 18.2
NONMANUFACTURING	1,710.4	1,685.3	1,624.1	1,529.6	1,460.4	17.1
Mining	23.9	24.2	20.5	22.0	21.8	9.6
Bituminous Coal and Lignite Mining	20.6	20.7	17.3	19.1	18.7	10.2
Construction	124.3	135.4	130.2	119.0	111.8	11.2
General Building Contractors	39.7	44.2	41.0	37.3	34.5	15.1
Heavy Construction Contractors	20.3	24.1	24.3	22.6	21.9	- 7.3
Special Trade Contractors	64.3	67.1	64.9	59.1	55.4	16.1

ESTIMATED EMPLOYMENT IN VIRGINIA NONAGRICULTURAL ESTABLISHMENTS, (CONTINUED)

INDUSTRY GROUP	EMPLOYMENT (In Thousands of Employees)					Percent Change From
	1980	1979	1978	1977	1976	1976 - 1980
Transportation and Public Utilities	114.8	114.3	107.6	105.9	104.4	10.0
Railroad Transportation	14.0	14.6	12.5	15.1	15.8	- 11.4
Local & Interurban Passenger Transit	5.6	5.9	5.9	6.5	6.2	- 9.7
Trucking and Warehousing	29.5	29.9	28.4	26.0	25.3	16.6
Water Transportation	6.2	6.1	5.6	5.2	5.2	19.2
Transportation by Air	10.9	11.3	11.0	10.8	10.6	2.8
Pipelines, except Natural Gas	.2	.2	.2	.1	.1	100.0
Transportation Services	3.3	3.3	2.6	2.3	2.1	57.1
Communication	28.7	27.3	26.3	25.4	25.1	14.3
Electric, Gas & Sanitary Services	16.4	15.7	15.1	14.5	14.0	17.1
Wholesale & Retail Trade	447.3	439.9	428.1	405.6	386.7	15.7
Wholesale Trade	104.8	101.7	96.8	91.2	87.0	20.4
Wholesale Trade-Durable Goods	63.8	62.4	58.2	53.7	50.5	26.3
Wholesale Trade-Nondurable Goods	41.0	39.3	38.6	37.5	36.5	12.3
Retail Trade	342.5	338.2	331.3	314.4	299.7	14.3
Building Materials and Garden Supplies	13.4	13.6	13.4	13.0	12.4	8.1
General Merchandise Stores	56.1	57.2	58.8	57.3	54.4	3.1
Food Stores	54.2	51.0	49.1	46.4	45.5	19.1
Automotive Dealers & Service Stations	46.5	48.6	49.2	47.5	46.1	.9
Apparel & Accessory Stores	18.7	18.4	18.4	17.8	18.1	3.3
Furniture & Home Furnishings Stores	15.6	16.1	16.2	15.5	14.9	4.7
Eating and Drinking Places	94.6	90.9	85.5	78.4	70.9	33.4
Miscellaneous Retail	43.4	42.4	40.7	38.5	37.4	16.0
Finance, Insurance & Real Estate	105.6	103.3	97.1	91.7	86.3	22.4
Banking	31.0	30.3	28.2	26.7	25.8	20.2
Credit Agencies Other Than Banks	12.5	12.2	11.2	9.8	8.5	47.0
Security, Commodity Brokers & Services	2.2	1.9	1.9	1.9	1.8	22.2
Insurance Carriers	19.9	19.6	19.3	18.7	17.8	11.8
Insurance Agents, Brokers & Service	8.5	8.0	7.3	6.8	6.3	34.9
Real Estate	23.2	23.9	23.3	22.4	20.9	11.0
Combination of Real Estate, Insurance, Etc.	.2	.2	.4	.5	.6	- 66.7
Holding & Other Investment Offices	8.1	7.2	5.5	4.9	4.6	76.1
Services	386.9	374.6	357.9	331.8	312.8	23.7
Hotels & Other Lodging Places	27.0	27.7	28.2	26.8	26.7	1.1
Personal Services	24.7	24.2	23.7	22.9	22.5	9.8
Business Services	76.0	72.8	68.2	60.3	52.7	44.2
Auto Repair, Services & Garages	12.7	12.6	11.2	9.5	9.0	41.1
Miscellaneous Repair Services	5.7	5.5	5.2	4.6	4.5	26.7
Motion Pictures	3.1	3.0	2.9	2.8	3.0	3.3
Amusement & Recreation Services	12.9	13.1	13.4	12.9	12.7	1.6
Health Services	100.8	97.1	93.4	89.3	83.3	21.0
Legal Services	9.7	9.2	8.8	8.0	7.5	29.3
Educational Services	20.4	20.1	19.0	18.5	18.2	12.1
Social Services	19.6	18.2	16.7	14.3	11.9	64.7
Museums, Botanical, Zoological Gardens	2.5	2.3	1.9	1.8	1.9	31.6
Membership Organizations	40.2	39.0	38.0	36.3	35.7	12.6
Miscellaneous Services	23.3	22.2	20.5	17.8	17.6	32.4
Agricultural Services	7.2	6.9	6.6	5.8	5.6	28.6
Government	507.6	493.6	482.7	453.6	436.6	16.3
Federal Government	156.1	153.4	153.8	151.7	149.6	4.3
Department of Defense	106.6	105.8	106.0	105.6	103.7	2.8
Defense Medical & V. A. Hospitals	6.6	6.5	6.6	6.3	6.2	6.4
Postal Service	13.5	13.5	13.4	13.5	13.8	- 2.2
Other Agencies	29.4	27.6	27.8	26.3	25.9	13.5
State & Local Government	351.5	340.2	328.9	301.9	287.0	22.5
State Government	118.5	117.9	115.4	107.7	101.7	16.5
Education	50.6	50.0	48.4	45.0	43.7	15.8
General	67.9	67.9	67.0	62.7	58.0	17.1
Local Government	233.0	222.3	213.5	194.2	185.3	25.7
Education	132.3	127.7	123.2	121.7	116.7	13.4
General	100.7	94.6	90.3	72.5	68.6	46.8

Estimates include all full-time and part-time wage and salary workers who worked during or received pay for the pay period including the twelfth of the month. Self-employed persons are excluded. Employment series have been adjusted to December 1978 benchmark levels. Industrial classification structure in accordance with the 1972 Standard Industrial Classification Manual.

1/ Federal Government employment in the Virginia portion of the Washington Standard Metropolitan Area is included.

Manufacturing's outlook has promise for 1981. According to "The Virginia Economic Review," published by the Virginia Division of Industrial Development, announcements of 99 new plants or expansions to existing facilities were made during 1980. For the first time since 1977 plant expansions were more important than new plants both in numbers and expected employment. While eighteen of the twenty major categories of manufacturing were involved in the announcements, forty percent of the expected employment was for one classification, electric and electronic equipment, a concentration greater than in any past year on record. Although geographically distributed throughout the State, a close look reveals announcements were more urban and less rural than they had been in most past years.

The construction industry was another soft spot in the State's economy. Plagued by high interest rates and high material costs, the construction performance for the year remained below expectations of builders. Home contractors suffered the most. Employment for the division in Virginia also followed the nation's pattern. Cyclical trends for both showed downturns during the winter, a thawing in the spring and picking up steam in the summer with a cooling in the fall months. Yet, employment showed growth at the end of the year as construction activity recovered, subsequent to a temporary decline in mortgage interest rates. Future prosperity hinges to a large degree on interest rates as demand for homes and commercial building has been expressed in many areas. Likewise, mining employment was below last year but an increased emphasis on coal is expected to reverse this trend in the coming months.

Statewide, as well as nationally, service-producing industries were on the upswing. Government workers comprised 24 percent of nonagricultural employment in Virginia, whereas for the nation the figure was 18 percent. Federal government employment surged upward during the first and second quarters as a result of temporary hirings for the 1980 Decennial Census but fell in the third quarter and ended the year slightly higher than last year. Ditto for the nation. While State government had the lowest over-the-year increment, local government, nevertheless, continued on an upward path. Fifty-two percent of all State and local government workers were involved in educational systems. Virginia has made a firm commitment to quality education, with substantial progress having been made in a variety of programs at all levels of schooling.

Between 1976 and 1980 service's workforce has made the largest percent increase (+ 27.7). During 1980 the number of jobs in this sector continued to grow but at a slower pace. Many establishments in this group depend on tourism, and Virginia travel business was above projections made during the early months of the year. Since 1979 was known as the year of the gas shortage, 1980's performance was an improvement but fell short of the records set during 1978. The State offered a variety of historical and recreational attractions to visitors, many who had only a few hours drive to rest and relaxation. All-time highs in employment were reached during July and August when the tourist season was at a peak. From the mountains to the shore, demands for all types of services continued to expand. Increased need for health, social and business services boosted worker totals.

Merchants, both wholesale and retail, added to their staffs. The 3,100 over-the-year rise in wholesale trade was shared by dealers of both durable and nondurable goods, while the 4,300 pickup in retail trade was produced with mixed trends. Food stores, restaurants, miscellaneous stores, and to a lesser degree, apparel stores account for the ups. These more than offset losses by auto dealers and department stores. Operating cost cuts were made with many stores becoming more self-service orientated. Consumer dollars were concentrated on necessities with postponements of big luxury items. Sales were up and down during the year, depending in part on interest rates. Christmas spending left shopkeepers at year end on a positive note. Confidence in future buying was expressed in the erection of new, multi-million-dollar shopping malls in metropolitan areas and smaller shopping centers all across Virginia.

ESTIMATED FEMALE EMPLOYMENT IN NONAGRICULTURAL INDUSTRIES IN VIRGINIA

ANNUAL AVERAGES 1978 - 1980

INDUSTRY GROUP	EMPLOYMENT (In Thousands of Employees)			Percent Change From
	1980	1979	1978	1978 - 1980
NONAGRICULTURAL 1/	887.5	867.7	842.9	5.3
MANUFACTURING	145.1	145.5	144.7	.3
Durable Goods	44.8	45.5	44.3	1.1
Lumber and Wood Products	4.1	4.4	4.1	0
Furniture and Fixtures	8.9	9.1	9.1	- 2.2
Stone, Clay, and Glass Products	1.4	1.5	1.4	0
Primary Metal Industries	2.0	2.0	1.9	5.3
Fabricated Metal Products	3.5	3.5	3.3	6.1
Machinery, except Electrical	2.4	2.4	2.2	9.1
Electric and Electronic Equipment	14.9	15.0	14.9	0
Transportation Equipment	4.9	4.8	4.7	4.2
Instruments and Related Products	1.6	1.5	1.5	6.7
Miscellaneous Manufacturing Industries	1.1	1.3	1.2	- 8.3
Nondurable Goods	100.3	100.0	100.4	- .1
Food and Kindred Products	15.1	14.9	14.9	1.3
Tobacco Manufactures	5.6	5.4	5.3	5.7
Textile Mill Products	24.4	23.9	23.8	2.5
Apparel and Other Textile Products	31.1	31.2	32.5	- 4.3
Paper and Allied Products	2.5	2.5	2.3	8.7
Printing and Publishing	7.7	7.5	6.9	11.6
Chemicals and Allied Products	8.5	8.9	8.9	- 4.5
Petroleum, Rubber and Misc. Plastics Prod.	2.7	2.9	2.9	- 6.9
Leather\and Leather Products	2.7	2.8	2.9	- 6.9
NONMANUFACTURING	742.4	722.2	698.2	6.3
Mining	.6	.6	.5	20.0
Bituminous Coal and Lignite Mining	.5	.4	.4	25.0
Construction	7.8	8.3	8.0	- 2.5
Transportation and Public Utilities	28.0	27.2	25.7	8.9
Railroad Transportation	1.8	1.9	1.6	12.5
Trucking and Warehousing	3.1	3.0	3.0	3.3
Transportation by Air	4.3	4.2	3.9	10.2
Communication	13.8	13.1	12.6	9.5
Electric, Gas and Sanitary Services	3.5	3.3	3.0	16.7
Wholesale and Retail Trade	184.9	182.4	179.4	3.1
Wholesale Trade	20.6	20.0	19.2	7.3
Wholesale Trade-Durable Goods	12.5	12.3	11.6	7.8
Wholesale Trade-Nondurable Goods	8.1	7.7	7.6	6.6
Retail Trade	164.3	162.4	160.2	2.6
General Merchandise Stores	37.0	38.4	40.0	- 7.5
Department Stores	27.4	29.5	30.8	-11.0
Variety Stores	7.4	7.1	7.4	0
Food Stores	21.3	20.4	20.0	6.5
Automotive Dealers and Service Stations	8.1	8.4	8.6	- 5.8
Furniture and Home Furnishings Stores	4.6	4.9	4.7	- 2.1
Miscellaneous Retail	24.8	24.1	23.0	7.8
Finance, Insurance, and Real Estate	60.1	58.4	54.3	10.7
Banking	22.7	22.0	20.1	12.9
Insurance Carriers	11.0	10.8	10.4	5.8
Real Estate	7.9	8.2	7.9	0
Services	214.4	207.8	201.8	6.2
Personal Services	13.7	14.6	15.2	- 9.9
Business Services	33.5	32.4	30.7	9.1
Auto and Miscellaneous Repair Services	3.4	3.5	3.5	- 2.8
Health Services	80.8	78.0	76.0	6.3
Government	246.6	237.5	228.5	7.9
Federal Government	55.3	52.9	52.3	5.7
State and Local Government	191.3	184.6	176.2	8.6
State Government	61.1	61.0	58.7	4.1
Local Government	130.2	123.6	117.5	10.8

Estimates include all full-time and part-time wage and salary workers who worked during or received pay for the pay period including the twelfth of the month. Self-employed persons are excluded. Employment series have been adjusted to December 1978 benchmark levels. Industrial classification structure is in accordance with the 1972 Standard Industrial Classification Manual.

1/ Federal Government employment in the Virginia portion of the Washington Standard Metropolitan Area is included.

The overall increase in transportation and public utilities from 114,300 in 1979 to 114,800 in 1980 was centered in the utilities end of the division. Growing demands from an expanding population required utility companies to increase services. A growth field was the extension of cablevision service to many areas. Another boost to employment was the influx of a large regional headquarters staff into Northern Virginia. Whether transportation was by land, sea or air, a downward movement in jobholders was posted.

Finance, insurance and real estate enterprises had a diversity of directions in wage earners. Financial institutions and insurance agencies made gains amounting to 3,000 workers. However, 700 of this rise was erased by real estate firms — further evidence of construction's ills. While there never was a strong demand for home loans because of high mortgage rates, other business, such as home improvement loans and second mortgages, was a means of keeping employees busy. Over the course of the year the Federal Reserve Board changed its discount rate seven times and the prime rate was changed five times that number, or more, by many establishments. This instability was the controlling factor in the consumer's mind as far as making a commitment to the future and will remain the key to the financial industry in the coming months.

The business climate for the year, both nationally and statewide, has been described with many adjectives — up, down, good, bad, firm, soft, strong, weak, hot and cold. The Department of Labor and Industry's Annual Report for the year 1960 stated, "The growth and development of Virginia are influenced by the extent to which economic activity has become more diversified." The diversification that developed over the past twenty years allowed Virginia in 1980 to maintain an economic temperature rating above the nation's.

Ruby L. Butler

BRISTOL METROPOLITAN STATISTICAL AREA

If the Bristol economy were a spring flower, 1980 would be a light frost. Nonagricultural employment was nipped back 0.4 percent from the previous year. The source of this small decline was a steeper loss in manufacturing. Nonmanufacturing employment, on the other hand, increased slightly.

While it is difficult to say something good about manufacturing this year, especially the durable subdivision, it was fortunate that the largest area plants experienced only minor or short-lived setbacks. There were several brief layoffs at some of the big metal fabricators and a one month unpaid vacation for three hundred workers at a company in the apparel group. Things could have been much worse. Often losses in durable goods were related to the state of the construction industry. One manufacturer of mobile homes kept only a skeleton crew after February. Many producers of building supplies in the wood products group had an off year. Another closing in nonelectrical machinery may be tied to construction. Most, if not all, of that company's products were tools used by contractors. The nondurables fared better. Movement was mixed but generally up. Apparel and other nondurable goods both improved; and although the food and kindred products group went on a diet, several food manufacturers thrived. One, a producer of potato chips and similar snacks, expanded its market to include North Carolina. An extra shift was introduced early in the year, and its workforce has increased twenty-five percent since December, 1979.

In nonmanufacturing a pattern emerged similar to other state areas. Gains in the services and local government overrode losses in construction and retail trade. Employment dropped at auto dealers and restaurants, while no specific group can be isolated for comment in the services. One item of transportation news came out at mid-year: Norfolk and Western and Southern Railway are initiating a merger. Since Bristol is one of the few points where the systems connect, such a move would likely accelerate local rail activity three years from now when the merger is scheduled to be completed. In the trades: after renovation and enlargement the old Norfolk and Western depot in Bristol will be used as a shopping mall. This should give a boost to city retailers in 1981. The structure was recently declared a Virginia historical landmark. With fifty-two thousand square feet comprising forty-five shops, a restaurant, and a bandstand, the Union Station Mall will complement efforts toward downtown revitalization.

Another large employer with headquarters in Bristol defies characterization as either a manufacturer or nonmanufacturer. With over twenty-two hundred workers in seven states, it originally operated coal mines but has diversified into manufacturing as well. Recently the company has deepened its involvement by going into energy research. A $5.9 million grant to study the feasibility of a synfuel plant in Southwest Virginia was withheld by the Department of Energy in December. However, the company may press ahead without government money. Another project concerning the loading, transportation, and unloading of frozen coal was funded.

According to the Bureau of the Census, Bristol led all Southwest Virginia cities and counties in percentage growth of population and housing during the seventies. Local officials and citizens' groups have been actively supporting this expansion. Apart from usual community development such as water and sewer lines, highways, etc., three projects stand out: (1) A $28.8 million incinerator slated for completion in 1983 will consume three hundred tons of garbage per day in full operation. A cooperative venture with several local governments from both Virginia and Tennessee participating, the steam generated will be sold to area businesses or TVA. (2) At year's end a housing project was approved by HUD for low-income tenants. An $800,000 grant was awarded. (3) The city has applied for $1.8 million in federal money toward the revitalization of downtown Bristol. These funds would provide for the construction of new streets and curbs, a drainage system, sidewalks, and a park.

The local economy has endured a cold night, but there is no question that it is still firmly rooted and will later bloom and flourish.

Howard Luther

EMPLOYMENT IN THE BRISTOL, VIRGINIA AREA NONAGRICULTURAL ESTABLISHMENTS BY MAJOR INDUSTRY DIVISION

ANNUAL AVERAGES 1976 - 1980

INDUSTRY GROUP	EMPLOYMENT (In Thousands of Employees)					Percent Change From
	1980	1979	1978	1977	1976	1976 - 1980
NONAGRICULTURAL	28.4	28.5	27.2	25.1	24.5	15.9
MANUFACTURING	9.4	9.8	9.7	8.8	8.7	8.0
Durable Goods	4.7	5.3	5.2	4.8	4.5	4.4
Lumber and Wood Products and Furniture and Fixtures	.3	.5	.6	.5	.6	- 50.0
Stone, Clay and Glass Products	.3	.3	.3	.3	.3	0
Primary Metal Ind. and Fabricated Metal Prod.	2.2	2.3	2.1	2.0	1.8	22.2
Other Durable Goods 1/	1.9	2.2	2.2	2.0	1.8	5.6
Nondurable Goods	4.7	4.5	4.5	4.0	4.2	11.9
Food and Kindred Products	1.6	1.7	1.7	1.6	1.7	- 5.9
Textile Mill Products	.2	.2	.2	.1	.1	100.0
Apparel and Other Textile Products	1.9	1.7	1.7	1.6	1.7	11.8
Paper & Allied Prod., Printing & Publishing	.5	.5	.5	.4	.4	25.0
Other Nondurable Goods 2/	.5	.4	.4	.3	.3	66.7
NONMANUFACTURING	19.0	18.7	17.5	16.3	15.8	20.2
Construction	1.3	1.4	1.3	1.1	1.0	30.0
General Building Contractors	.4	.5	.4	.4	.3	33.3
Heavy Construction Contractors	.4	.3	.3	.2	.2	100.0
Special Trade Contractors	.5	.6	.6	.5	.5	0
Transportation and Utilities	1.1	1.1	1.0	.9	.9	22.2
Trucking and Warehousing	.5	.5	.4	.4	.4	25.0
Wholesale and Retail Trade	6.6	6.8	6.2	6.2	5.9	11.9
Wholesale Trade	1.7	1.7	1.5	1.6	1.5	13.3
Retail Trade	4.9	5.1	4.7	4.6	4.4	11.4
Building Materials and Farm Equipment	.3	.3	.3	.3	.3	0
General Merchandise Stores	.9	.9	.8	.9	.9	0
Food Stores	.9	.9	.8	.7	.6	50.0
Automotive Dealers and Service Stations	.7	.8	.8	.8	.7	0
Apparel and Accessory Stores	.3	.3	.3	.3	.3	0
Furniture and Home Furnishings	.2	.2	.2	.2	.2	0
Eating and Drinking Places	1.0	1.1	1.1	1.0	1.0	0
Miscellaneous Retail	.6	.6	.4	.4	.4	50.0
Finance, Insurance and Real Estate	1.0	1.0	.9	.8	.9	11.1
Banking	.4	.4	.4	.4	.4	0
Services and Mining	3.8	3.5	3.2	3.0	3.1	22.6
Hotels and Other Lodging Places	.2	.3	.3	.3	.2	0
Personal Services	.2	.3	.3	.3	.2	0
Automotive Repair, Services, and Garages	.1	.1	.1	.1	.1	0
Health Services	1.0	.9	.9	.8	.8	25.0
Educational Services	.4	.4	.4	.3	.4	0
Membership Organizations	.6	.6	.6	.5	.6	0
Government	5.2	4.9	4.9	4.3	4.0	30.0
Federal Government	.3	.2	.3	.3	.3	0
State Government	1.3	1.4	1.3	1.1	1.0	30.0
Local Government	3.6	3.3	3.3	2.9	2.7	33.3

Estimates include all full-time and part-time wage and salary workers who worked during or received pay for the pay period including the twelfth of the month. Self-employed persons are excluded. Employment series have been adjusted to December 1978 benchmark levels. Industrial classification structure in accordance with 1972 Standard Industrial Classification Manual.

The Bristol, Virginia Metropolitan Area covers the city of Bristol and the counties of Scott and Washington.

1/ Includes machinery, except electric, electric and electronic equipment, transportation equipment, and instruments and related products.

2/ Includes tobacco manufactures, chemicals and allied products, rubber and miscellaneous plastics products, and leather and leather products.

ESTIMATED NUMBER OF PRODUCTION WORKERS AND HOURS AND GROSS EARNINGS OF THESE WORKERS IN SELECTED MANUFACTURING INDUSTRIES

ANNUAL AVERAGES 1979 & 1980

BRISTOL STANDARD METROPOLITAN STATISTICAL AREA

INDUSTRY GROUP	Production Workers (In Thousands)		ANNUAL AVERAGES Average Weekly Earnings		Average Weekly Hours		Average Hourly Earnings	
	1980	1979	1980	1979	1980	1979	1980	1979
MANUFACTURING	6.9	7.4	$206.07 1/	$204.50	37.4	37.8	$5.51 1/	$5.41
Durable Goods	3.6	4.2	250.90 1/	246.76	39.7	39.8	6.32 1/	6.20
Fabricated Metal Products	1.3	1.5	319.57 1/	337.72	39.6	39.5	8.07 1/	8.55
Machinery and Transportation Equipment	1.4	1.6	242.80	226.73	40.4	41.0	6.01	5.53
Nondurable Goods	3.3	3.2	156.25	149.67	34.8	35.3	4.49	4.24
Food and Kindred Products	.8	.8	185.36	174.44	34.2	35.6	5.42	4.90
Apparel and Other Textile Products	1.6	1.5	127.16	116.38	33.2	32.6	3.83	3.57

The Bristol, Virginia Metropolitan Area covers the city of Bristol and the counties of Scott and Washington.

1/ Not comparable with data for prior years.

PETERSBURG STANDARD METROPOLITAN STATISTICAL AREA

INDUSTRY GROUP	Production Workers (In Thousands)		ANNUAL AVERAGES Average Weekly Earnings		Average Weekly Hours		Average Hourly Earnings	
	1980	1979	1980	1979	1980	1979	1980	1979
MANUFACTURING	9.4	9.8	$297.00	$266.85	39.6	38.9	$7.50	$6.86
Durable Goods	2.2	2.2	175.03	159.85	38.3	37.7	4.57	4.24
Lumber and Wood Products and Furniture and Fixtures	.5	.4	143.32	136.53	35.3	37.0	4.06	3.69
Nondurable Goods	7.2	7.6	335.64	297.11	40.1	39.3	8.37	7.56
Food and Kindred Products	.2	.2	221.25	202.02	40.3	42.0	5.49	4.81
Chemicals and Allied Products	2.7	2.9	330.80	359.52	42.5	42.8	8.96	8.40

The Petersburg - Colonial Heights - Hopewell Standard Metropolitan Statistical Area covers the cities of Colonial Heights, Hopewell, and Petersburg and the counties of Dinwiddie and Prince George.

Average earnings are computed on a gross basis, reflecting not only changes in basic hourly and incentive wage rates, but also such variable factors as premium pay for overtime, late shift work, etc. Average weekly hours are the number of hours worked or paid for and are affected by such factors as absenteeism, turnover, overtime, etc.

PETERSBURG—COLONIAL HEIGHTS—HOPEWELL STANDARD METROPOLITAN STATISTICAL AREA

Employment built over 1980, even as Southside businesses poured the foundations for future growth.

Construction keystoned the local economy. A majority of contractors reported an off year, but one large project was enough to reverse the trend. The $32 million modernization of a Hopewell paper mill lasted through the entire year and at its peak occupied over fourteen hundred workers. Construction employment increased twenty-four percent over the 1979 figure. With this momentum gains in nonmanufacturing surpassed losses in manufacturing; however, the pattern in the rest of nonmanufacturing was similar to most other state areas. Services and government, particularly local government, compensated for manpower reductions in retail trade. General merchandise, auto, and food retailers all lost ground.

Area manufacturers strained under the weight of the recession. Southside unemployment, though below the national average, was consistently above the state average. Nondurables were especially hard hit. Layoffs and shortened workweeks began early in the year in the chemicals group. Producers of synthetic fibers, used in the manufacture of tires, experienced cutbacks. As car sales plummeted the demand for tires followed - hence the layoffs. Tobacco manufactures declined, but this was only one episode in a series associated with general malaise in the tobacco industry. The large drop in the other nondurable category since 1976 was due mainly to this phenomenon. Also leather goods employment has shrunk. In the durables one company actually benefitted from rising fuel prices. As transportation costs have escalated, railroad use has become more attractive. The company, the largest producer of railroad ball bearings in the United States, reported record sales, profits, and employment in 1980. Occasionally a seeming lack of activity was misleading: A case in point: employment in lumber and wood products and furniture and fixtures had remained constant since 1976. However, this year the work force in lumber increased significantly, but a seven-month shutdown by a maker of lawn furniture offset the gain.

Bricks and morter have finally started replacing the blueprints for many public works projects. A library, an elementary school, and a $2.3 million recreation center have all passed the planning stage. The area had over $20 million of new housing funded by various government agencies, including the Virginia Housing Development Authority, the Federal Housing Authority, and HUD. Local governments have started to catch up on necessary items, such as street repair and highway and sewer construction, but budgets have been tight. Quite a few businesses have expanded or moved into the area, including the near doubling of a Prince George producer of woodstoves, a new swimming pool manufacturer, and a metal fabricator with computerized facilities. The latter, the first tenant of the Petersburg Airport Industrial Park, will occupy a ten-acre site. As in other SMSA's the cities are interested in downtown revitalization; so interested, in fact, that Hopewell in the absence of federal funds has proceeded using its own money. Improvements include new water lines, better lighting, paving, brick sidewalks, tree planters, and fountains.

The enterprise of the few benefits many, and a couple of disparate ventures should benefit local residents soon. One, a manufacturer of luxury baby accessories, started as a cottage industry only last year. Now its retail outlets include Saks Fifth Avenue and Bloomingdales, and 1980 sales approached $300,000. With great anticipation the founder is planning a national advertising campaign. Annual sales are expected to reach $5 million by 1985. The other venture is a $160 million ethanol plant that the Petersburg city council pursued determinedly. Construction will begin at the city landfill and is scheduled for completion in 1984. All told the facility should generate six hundred new jobs and $2.4 million in real estate revenue each year. At full capacity two thousand tons of garbage will be converted to the lucrative commodity. These are examples of the vision and drive that have kept the Southside economy viable. It is encouraging to note that these qualities have not faded.

Howard Luther

EMPLOYMENT IN NONAGRICULTURAL ESTABLISHMENTS PETERSBURG - COLONIAL HEIGHTS - HOPEWELL AREA BY MAJOR INDUSTRY DIVISIONS

ANNUAL AVERAGES 1976 - 1980

INDUSTRY GROUP	EMPLOYMENT (In Thousands of Employees)					Percent Change From
	1980	1979	1978	1977	1976	1976 - 1980
NONAGRICULTURAL	48.0	47.0	46.4	44.8	43.8	9.6
MANUFACTURING	11.9	12.2	12.6	12.8	12.8	- 7.0
Durable Goods	2.8	2.7	2.9	2.9	2.8	0
Lumber and Wood Products and Furniture and Fixtures	.6	.6	.6	.6	.6	0
Stone, Clay and Glass Products	.2	.3	.2	.2	.2	0
Fabricated Metal Products	.2	.2	.3	.2	.2	0
Other Durable Goods 1/	1.8	1.6	1.8	1.9	1.8	0
Nondurable Goods	9.1	9.5	9.7	9.9	10.0	- 9.0
Food and Kindred Products	.3	.4	.3	.5	.5	- 40.0
Textile Mill Products and Apparel and Other Textile Products	1.1	1.0	1.0	.6	.3	266.7
Chemicals and Allied Products	3.6	3.8	3.8	3.9	3.8	- 5.3
Other Nondurable Goods 2/	4.1	4.3	4.6	4.9	5.4	- 24.1
NONMANUFACTURING	36.1	34.8	33.8	32.0	31.0	16.4
Construction	3.1	2.5	2.4	2.3	2.2	40.9
General Building Contractors	1.4	.9	.7	.7	.6	133.3
Heavy Construction Contractors	.4	.4	.4	.4	.3	33.3
Special Trade Contractors	1.3	1.2	1.3	1.2	1.3	0
Transportation and Public Utilities	1.5	1.5	1.3	1.3	1.4	7.1
Wholesale and Retail Trade	8.2	8.4	8.5	8.2	7.9	3.8
Wholesale Trade	1.3	1.2	1.2	1.1	1.1	18.2
Retail Trade	6.9	7.2	7.3	7.1	6.8	1.5
General Merchandise Stores	1.5	1.6	1.8	1.7	1.5	0
Food Stores	.8	.9	1.0	1.0	1.1	27.3
Automotive Dealers and Service Stations	1.1	1.2	1.2	1.2	1.2	- 8.3
Eating and Drinking Places	1.7	1.6	1.6	1.5	1.4	21.4
Miscellaneous Retail	.9	.9	.8	.7	.7	28.6
Finance, Insurance and Real Estate	1.3	1.3	1.2	1.1	1.1	18.2
Services and Mining	6.2	5.8	5.6	5.1	5.1	21.6
Personal Services	.7	.8	.7	.7	.7	0
Health Services	2.3	2.2	2.2	2.0	2.0	15.0
Government	15.8	15.3	14.8	14.0	13.3	18.8
Federal Government	5.6	5.5	5.5	5.5	5.5	1.8
State and Local Government	10.2	9.8	9.3	8.5	7.8	30.8
State	3.8	3.7	3.6	3.5	3.3	15.2
Local	6.4	6.1	5.7	5.0	4.5	42.2

Estimates include all full-time and part-time wage and salary workers who worked or received pay for the pay period including the twelfth of the month. Self-employed persons are excluded. Employment series have been adjusted to December 1978 benchmark levels. Industrial classification structure is in accordance with 1972 Standard Industrial Classification Manual.

The Petersburg-Colonial Heights-Hopewell Standard Metropolitan Statistical Area covers the cities of Colonial Heights, Hopewell, and Petersburg and the counties of Dinwiddie and Prince George.

1/ Includes primary metal industries, machinery, except electric, electric and electronic equipment, transportation equipment, instruments and related products, and miscellaneous manufacturing industries.

2/ Includes paper and allied products, printing and publishing, rubber and miscellaneous plastic products, and leather and leather products.

LYNCHBURG STANDARD METROPOLITAN STATISTICAL AREA

A host of factors helped the economy of Lynchburg survive a difficult year. Several new firms opened in the area; some existing ones announced plans for expansion; and with the opening of a new shopping mall, the area's economy was helped.

Manufacturing, over 40 percent of nonagriculture, showed a decline in its employment by approximately 600 workers over the year or a minus 2 percent change. The biggest loss in the manufacturing industry occurred in durable goods in which they had approximately 900 less employees on the payrolls in 1980 than in 1979. Nondurable goods recorded a plus 200 workers to their staffs for the same period. Average weekly earnings rose $15.98 over the year to $240.30, and hourly earnings grew from $5.58 to $6.13 for the same period. Most sectors of the industry showed a pattern of shorter workweeks and higher hourly earnings.

The recession forced many firms to cut back on their spending and to lay off workers. One of the area's foundries experienced several layoffs along with shorter workweeks and shutdowns because of continued decline in customer orders due to sagging American auto sales. The foundry depends on the auto industry for a large percent of its business. It is anticipated that the making of new parts for the 1981 compacts will help pull them out of a slump. Other large manufacturers of automotive batteries, conveyors and high-volume machines and electrical equipment also experienced layoffs because of declines in business. Cutbacks at those firms did not prevent the announcement of several new and expanding facilities that promised new jobs in the metal, paper, printing and furniture industries. This growth represents more than $40 million in buildings and equipment, and with a projected employment growth of approximately 500 or more new jobs when these firms are in full operation.

The nonmanufacturing industry created 500 jobs through expansions and building of new facilities over the twelve-month period, showing a 1.2 percent change. Construction employment recorded a minute gain (+ 100) during the year. Approximately 1,580 building permits (57 less than last year) were issued in 1980 valued at $80,310,213. The building of the River Ridge Mall acted as a stimulus to many of the area's construction firms. It is the area's first enclosed regional shopping mall, making Lynchburg known as "The Trade Center of Central Virginia."

The number of new homes being built during the 1979-80 period showed a downtrend for the better part of the year because of high interest rates for mortgage money, and the rising cost of materials. Home-owners, not only in Lynchburg, but in all areas are adding on, painting, and repairing their old homes because they just cannot afford new ones.

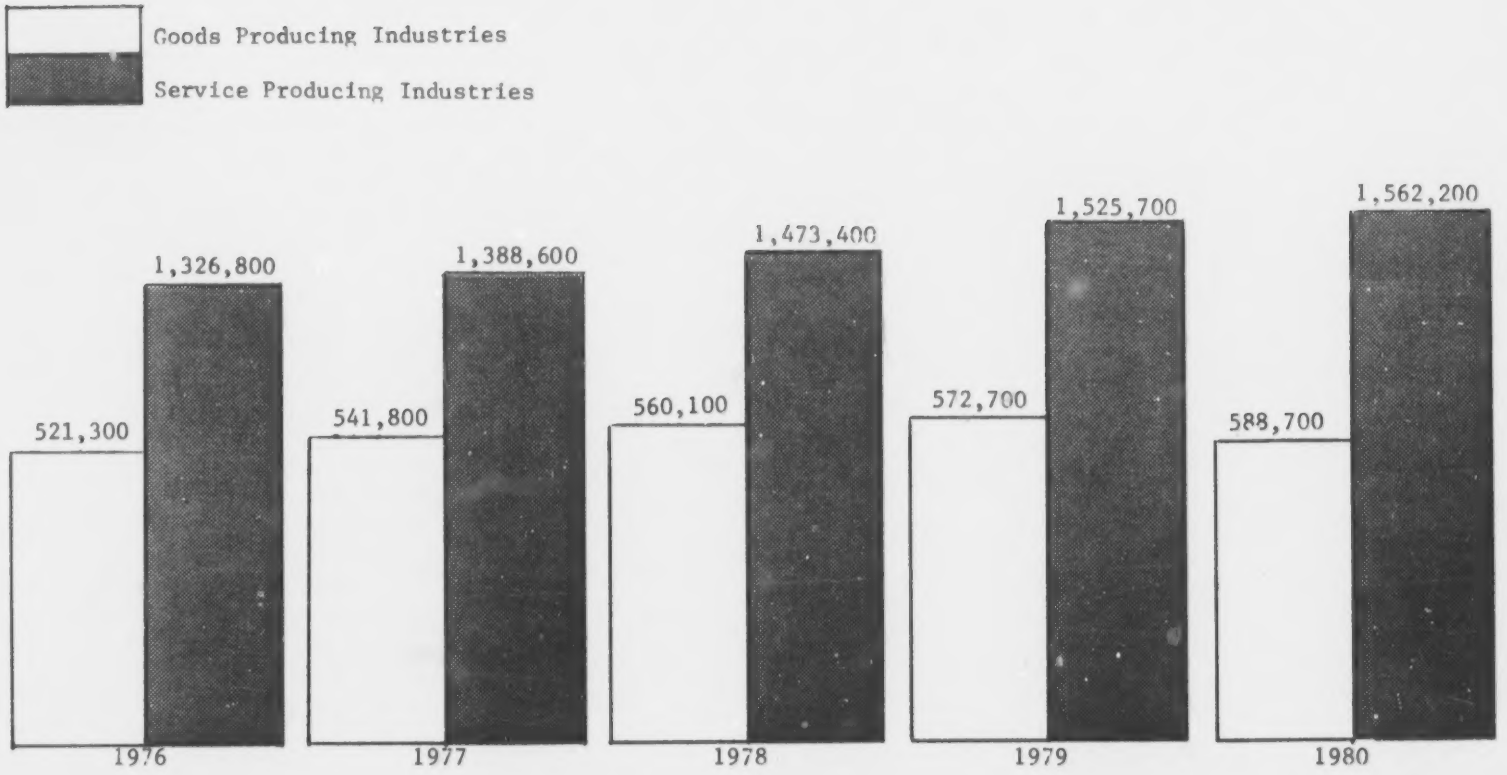
The trade industry watched its employment drop 400 between 1979 and 1980 — a 3.3 percent change with the loss being traced to the retail trade sector. This section showed a decline because of rising costs of food, and the still-high price tags on automobiles, even with car dealers offering rebates. Two of the most popular holidays of the year when people do a lot of spending, Easter and Christmas, saw a change this year in the buying patterns of shoppers from previous years. Shoppers only bought the necessities, there being little extra money for splurging because of inflation. The area's economy got a big boost when the River Ridge Mall opened its doors in September. The $50 million mall is expected to have $80 million in annual sales and a work force of more than 1,200 people. Some top-name stores already have opened or are planning to occupy space within the mall.

Finance, insurance and real estate showed again a modest gain of 200 workers. Three hundred workers were added to service employment, thereby experiencing another good year. Plans were unveiled by Lynchburg's two hospitals for major expansions. "Virginia Baptist Hospital will have $16.4 million in expansion and renovation. The work includes construction of a four-story South Addition." A $6.4 million expansion and renovation at Lynchburg General Hospital has also been announced, with the major part of the work being centered at the hospital's emergency room. The area also saw several new business openings — a beauty center, printing shop, cosmetic outlet, and an employment firm just to name a few. All helped to boost service employment to a 2.8 percent change. Employment for the government sector rose by 200 persons because of the Federal hiring of temporary workers for the 1980 census.

The 1980 census put the Lynchburg population at 153,348 in comparison to 1970's 134,744, ranking Lynchburg number 204 out of the 284 SMSA's. The Lynchburg area, like others, has felt the recession, and signals that its growth will continue.

Brenda F. Toomer

V I R G I N I A
NONAGRICULTURAL EMPLOYMENT
ANNUAL AVERAGES 1976 - 1980



ESTIMATED NUMBER OF PRODUCTION WORKERS AND HOURS AND GROSS EARNINGS OF THESE WORKERS IN SELECTED MANUFACTURING INDUSTRIES IN VIRGINIA

ANNUAL AVERAGES 1979 & 1980

INDUSTRY GROUP	PRODUCTION WORKERS (In Thousands)		ANNUAL AVERAGES AVERAGE WEEKLY EARNINGS		AVERAGE WEEKLY HOURS		AVERAGE HOURLY EARNINGS	
	1980	1979	1980	1979	1980	1979	1980	1979
MANUFACTURING	314.8	318.8	$248.45	$221.53	39.3	39.7	$6.22	$5.58
Durable Goods	141.1	144.5	248.52	227.93	39.7	40.2	6.26	5.67
Lumber and Wood Products	19.8	21.2	175.41	165.02	37.4	38.2	4.69	4.32
Furniture and Fixtures	21.6	22.9	163.78	156.02	38.0	39.2	4.31	3.98
Household and Office Furniture	20.5	21.9	162.11	154.84	37.7	39.1	4.30	3.96
Stone, Clay and Glass Products	10.0	10.9	229.94	220.70	40.2	41.8	5.72	5.28
Structural Clay Products	.7	.9	200.04	193.87	39.3	40.9	5.09	4.74
Glass and Glass Products	1.4	1.3	244.40	233.04	40.0	41.1	6.11	5.67
Primary Metal Industries	6.7	7.8	306.82	286.12	38.4	40.7	7.99	7.03
Fabricated Metal Products	13.5	13.8	303.55 2/	282.31 2/	40.8	41.7	7.44 2/	6.77 2/
Fabricated Structural Metal Products	7.7	7.8	300.77 2/	278.63 2/	41.6 2/	42.8	7.23 2/	6.51 2/
Machinery, except Electrical	10.7	10.6	265.17	247.66	40.3	40.8	6.58	6.07
Construction and Related Machinery	2.8	3.0	262.64	248.47	39.2	40.8	6.70	6.09
Special Industry Machinery	1.5	1.6	291.95	275.39	39.4	41.6	7.41	6.62
Refrigeration and Service Machinery	1.2	1.4	277.10	245.92	42.5	41.4	6.52	5.94
Electric and Electronic Equipment	22.4	22.6	252.17	220.87	39.9	39.3	6.32	5.62
Communication Equipment	7.1	7.2	273.20	238.23	40.0	38.8	6.83	6.14
Transportation Equipment	31.3	29.5	- 1/	- 1/	- 1/	- 1/	- 1/	- 1/
Instruments and Related Products	2.4	2.2	210.14	203.94	39.5	39.6	5.32	5.15
Miscellaneous Manufacturing Industries	2.7	3.0	201.32	186.03	37.7	38.2	5.34	4.87
Nondurable Goods	173.7	174.3	241.64	215.60	39.1	39.3	6.18	5.50
Food and Kindred Products	30.5	30.0	216.02	195.07	37.7	38.4	5.73	5.08
Tobacco Manufactures	12.2	11.9	363.61	279.73	38.6	37.7	9.42	7.42
Cigarettes	10.3	10.1	388.55	296.62	38.7	37.5	10.04	7.91
Textile Mill Products	40.0	40.0	201.90	188.96	40.3	40.9	5.01	4.62
Weaving Mills, Cotton, Synthetics and Wool	16.6	16.4	222.49	208.98	41.9	43.0	5.31	4.86
Knitting Mills	12.6	11.7	176.78	157.45	38.1	37.4	4.64	4.21
Yarn and Thread Mills	2.8	3.0	172.94	163.99	40.5	41.1	4.27	3.99
Miscellaneous Textile Goods	1.1	1.2	209.82	189.66	40.9	40.7	5.13	4.66
Apparel and Other Textile Products	31.7	31.5	149.14	133.43	36.2	35.3	4.12	3 78
Men's and Boys' Suits, Coats and Furnishings	12.4	12.1	154.40	134.29	36.5	34.7	4.23	3.87
Women's and Children's Outerwear and Undergarments	16.0	16.2	144.18	128.45	35.6	35.0	4.05	3.67
Paper and Allied Products	11.0	11.0	327.17	297.35	42.6	42.6	7.68	6.98
Pulp, Paper and Paperboard Mills	5.4	5.4	394.26	353.42	44.2	43.1	8.92	8.20
Miscellaneous Converted Paper and Paperboard Products, Containers	5.1	5.1	259.94	240.54	41.0	42.2	6.34	5.70
Printing and Publishing	12.9	12.7	285.35	260.13	38.2	39.0	7.47	6.67
Newspapers and Periodicals	3.0	2.9	254.14	235.52	35.2	35.1	7.22	6.71
Chemicals and Allied Products	22.8	23.8	323.42	296.19	41.2	41.6	7.85	7.12
Plastics Materials and Synthetics	14.5	15.6	329.62	302.21	41.1	41.8	8.02	7.23
Agricultural Chemicals	1.0	1.1	227.28	193.44	41.1	40.3	5.53	4.80
Petroleum, Rubber and Miscellaneous Plastics Products	9.3	9.9	- 1/	- 1/	- 1/	- 1/	- 1/	- 1/
Leather and Leather Products	3.3	3.5	135.04	125.80	37.1	37.0	3.64	3.40

1/ Not available.
2/ Not comparable with data for prior years.
The industrial classification structure is in accordance with the 1972 Standard Industrial Classification Manual.
The hours and earnings series are based on reports of gross payroll and corresponding paid man-hours for production workers in the manufacturing industries. Average earnings are computed on a gross basis reflecting not only the changes in basic hourly and incentive wage rates but such variable factors as premium pay for overtime, late shift work, etc. Average weekly hours are not scheduled hours but represent the number of hours worked or paid for and are affected by such factors as absenteeism, turnover, overtime, etc.

WORK STOPPAGES - UNITED STATES AND VIRGINIA - 1979

Work stoppages caused a work loss time of .10 percent of total working time in Virginia in 1979 while the national rate was .15. Man-days idle decreased to 525,200, approximately 59 percent less than in 1978. The number of workers involved in strikes in 1979 was 32.2 percent fewer than in 1978. In 1979 most measures of strike activity were in mining and transportation equipment. The following table expresses in thousands the number of workers and man-days involved in 1979 stoppages.

INDUSTRY GROUP	UNITED STATES			VIRGINIA		
	Stoppages Beginning in Year		Man-Days Idle During Year (All Stoppages)	Stoppages Beginning in Year		Man-days Idle During Year (All Stoppages)
	Number 1/	Workers Involved		Number 1/	Workers Involved	
ALL INDUSTRIES	4,827	1,727.1	34,753.7	56	24.0	525.2
MANUFACTURING	2,296	680.6	20,291.4	20	15.7	451.1
Ordnance and Accessories	2	2.6	175.0	-	-	-
Food and Kindred Products	178	40.6	968.7	-	-	-
Tobacco Manufactures	2	.1	.5	-	-	-
Textile Mill Products	30	4.8	193.8	1	.1	5.3
Apparel and Other Finished Products Made From Fabrics and Similar Materials	55	10.5	230.1	1	.1	14.4
Lumber and Wood Products, except Furniture	60	14.5	288.7	1	.2	4.0
Furniture and Fixtures	74	13.0	272.0	-	-	-
Paper and Allied Products	110	21.4	1,135.3	-	-	28.4 4/
Printing, Publishing and Allied Industries	39	10.7	216.5	-	-	-
Chemicals and Allied Products	143	22.2	1,172.2	-	-	-
Petroleum Refining and Related Industries	33	12.4	259.8	-	-	-
Rubber and Miscellaneous Plastics Products	112	28.1	767.9	-	-	-
Leather and Leather Products	17	4.8	163.3	-	-	-
Stone, Clay, and Glass Products	163	28.6	573.7	2	.5	7.4
Primary Metal Industries	202	49.9	1,480.8	2	3.8	164.0
Fabricated Metal Products, except Ordnance, Machinery, and Transportation Equipment	352	56.1	1,962.6	-	-	11.5 4/
Machinery, except Electrical	316	173.5	5,618.1	4	1.1	52.9
Electric and Electronic Equipment	195	76.2	2,028.3	5	.6	1.3
Transportation Equipment	141	94.9	2,332.6	4	8.8	143.0
Professional, Scientific and Controlling Instruments: Photographic and Optical Goods; Watches and Clocks	26	5.8	249.1	-	-	-
Miscellaneous Manufacturing Industries	57	10.0	202.4	1	.6	19.0
NONMANUFACTURING	2,536	1,046.5	14,462.4	36	8.3	74.1
Agriculture, Forestry and Fisheries	20	8.8	568.9	-	-	-
Mining	441	141.3	510.8	25	4.4	12.6
Construction	273	121.2	1,646.4	3	.2	4.0
Transportation, Communication, Electric, Gas and Sanitary Services	376	387.3	5,642.7	4	3.3	44.0
Wholesale and Retail Trade	511	63.7	1,368.3	3	.3	4.5
Finance, Insurance and Real Estate	26	3.1	71.5	-	-	-
Services	301	67.0	1,671.3	1	.1	9.0
Government 3/	593	254.1	2,982.5	-	-	-

1/ Stoppages extending into two industry groups or more have been counted in each industry affected; workers involved and man-days idle were allocated to the respective groups.
2/ Less than 100 workers or man-days.
3/ The situtations reported here have, for statistical purposes, been deemed to fall within the Bureau of Labor Statistics' definition of a work stoppage.
4/ Strikes carried over from 1978. Number and workers involved counted in 1978 totals.
NOTE: Because of rounding, sums of individual items may not equal totals. Dashes (-) denote zeros.
SOURCE: The United States Department of Labor, Bureau of Labor Statistics.

ESTIMATED EMPLOYMENT IN LYNCHBURG AREA NONAGRICULTURAL ESTABLISHMENTS BY MAJOR INDUSTRY DIVISIONS

ANNUAL AVERAGES 1976 - 1980

INDUSTRY GROUP	EMPLOYMENT (In Thousands of Employees)					Percent Change From
	1980	1979	1978	1977	1976	1976 - 1980
NONAGRICULTURAL 1/	72.0	72.1	68.9	64.4	61.2	17.6
MANUFACTURING	29.0	29.6	29.2	28.0	26.9	7.8
Durable Goods	18.6	19.5	19.3	18.2	17.4	6.9
Lumber and Wood Products and Furniture and Fixtures	4.1	4.3	4.2	3.7	3.4	20.6
Other Durable Goods 2/	14.5	15.2	15.1	14.5	14.0	3.6
Nondurable Goods	10.4	10.1	9.9	9.8	9.5	9.5
Food and Kindred Products	1.4	1.3	1.3	1.2	1.2	16.7
Textile Mill Products	1.7	1.8	1.7	1.6	1.5	13.3
Apparel and Other Textile Products	2.6	2.4	2.4	2.7	2.7	- 3.7
Paper and Allied Products	1.0	.9	.9	.9	.8	25.0
Other Nondurable Goods 3/	3.7	3.7	3.6	3.4	3.3	12.1
NONMANUFACTURING	43.0	42.5	39.7	36.4	34.3	25.4
Construction	3.6	3.5	3.3	3.0	2.7	33.3
General Building Contractors	1.3	1.1	1.0	1.0	.9	44.4
Heavy Construction Contractors	.4	.5	.6	.5	.5	- 20.0
Special Trade Contractors	1.9	1.9	1.7	1.5	1.3	46.2
Transportation and Public Utilities	2.8	2.7	2.5	2.6	2.6	7.7
Trucking and Warehousing	1.0	1.0	.9	.8	.8	25.0
Communication	.7	.7	.7	.7	.8	- 12.5
Wholesale and Retail Trade	11.8	12.2	11.5	10.6	10.0	18.0
Wholesale Trade	2.2	2.2	2.1	2.0	2.0	10.0
Retail Trade	9.6	10.0	9.4	8.6	8.0	20.0
General Merchandise Stores	1.2	1.7	1.6	1.5	1.4	21.4
Food Stores	1.5	1.5	1.5	1.4	1.4	7.1
Automotive Dealers and Service Stations	1.0	1.2	1.2	1.2	1.2	- 16.7
Eating and Drinking Places	2.6	2.7	2.3	1.9	1.6	62.5
Miscellaneous Retail	1.3	1.3	1.2	1.1	1.0	30.0
Finance, Insurance and Real Estate	3.6	3.4	3.1	2.9	2.7	33.3
Banking	1.1	1.0	.9	.9	.9	22.2
Insurance Carriers	1.2	1.2	.9	.8	.7	71.4
Services and Mining	10.9	10.6	9.6	8.6	8.2	32.9
Personal Services	.6	.7	.7	.6	.6	0
Health Services	3.1	3.2	3.0	2.8	2.7	14.8
Educational Services	1.8	1.6	1.6	1.3	1.3	38.5
Membership Organizations	1.5	1.4	1.2	1.0	.8	87.5
Government	10.3	10.1	9.7	8.7	8.1	27.2
State and Local Government	9.8	9.7	9.2	8.3	7.7	27.3
Education	4.2	4.1	3.8	3.6	3.3	27.3
General	5.6	5.6	5.4	4.7	4.4	27.3

Estimates include all full-time and part-time wage and salary workers who worked during or received pay for the pay period including the twelfth of the month. Self-employed persons are excluded. Employment series have been adjusted to December 1978 benchmark levels. Industrial classification structure in accordance with 1972 Standard Industrial Classification Manual.

The Lynchburg Standard Metropolitan Statistical Area covers the city of Lynchburg and the counties of Amherst, Appomattox, and Campbell.

1/ Not comparable with data for years prior to 1970. Appomattox County included in the metropolitan area series beginning with data for January 1970.

2/ Includes stone, clay and glass products, primary metal industries, fabricated metal products, machinery, except electrical, electric and electronic equipment, transportation equipment, instruments and related products, and miscellaneous manufacturing industries.

3/ Includes tobacco manufactures, printing and publishing, chemicals and allied products, petroleum and coal products, rubber and miscellaneous plastic products, and leather and leather products.

ESTIMATED NUMBER OF PRODUCTION WORKERS AND HOURS AND GROSS EARNINGS OF THESE WORKERS IN SELECTED MANUFACTURING INDUSTRIES

ANNUAL AVERAGES 1979 & 1980

LYNCHBURG STANDARD METROPOLITAN STATISTICAL AREA

INDUSTRY GROUP	Production Workers (In Thousands)		ANNUAL AVERAGES Average Weekly Earnings		Average Weekly Hours		Average Hourly Earnings	
	1980	1979	1980	1979	1980	1979	1980	1979
MANUFACTURING	20.3	21.2	$240.30	$224.32	39.2	40.2	$6.13	$5.58
Durable Goods	12.1	13.2	251.81 1/	240.76	38.8 1/	40.6	6.49 1/	5.93
Lumber and Wood Products and Furniture and Fixtures	3.4	3.6	163.62	151.67	37.7	38.3	4.34	3.96
Nondurable Goods	8.2	8.0	222.72	197.10	39.7	39.5	5.61	4.99
Food and Kindred Products	.8	.7	241.81	215.88	42.2	42.0	5.73	5.14
Textile Mill Products	1.5	1.5	221.94	210.87	41.1	42.6	5.40	4.95
Apparel and Other Textile Products	2.2	2.2	130.34	116.22	34.3	33.3	3.80	3.49
Paper and Allied Products	.9	.8	375.65	332.96	51.6	49.4	7.28	6.74

The Lynchburg Standard Metropolitan Statistical Area covers the city of Lynchburg and the counties of Amherst, Appomattox, and Campbell.

1/ Not comparable with data for prior years.

ROANOKE STANDARD METROPOLITAN STATISTICAL AREA

INDUSTRY GROUP	Production Workers (In Thousands)		ANNUAL AVERAGES Average Weekly Earnings		Average Weekly Hours		Average Hourly Earnings	
	1980	1979	1980	1979	1980	1979	1980	1979
MANUFACTURING	14.4	14.4	$232.22	$206.80	39.9	40.0	$5.82	$5.17
Durable Goods	8.3	8.2	236.78	213.19	40.2	40.3	5.89	5.29
Fabricated Metal Products	1.3	1.3	219.37	211.18	40.4	41.9	5.43	5.04
Fabricated Structural Metal Products	.9	.9	222.60	208.47	40.4	41.2	5.51	5.06
Nondurable Goods	6.1	6.2	226.91	200.59	39.6	39.8	5.73	5.04
Food and Kindred Products	.9	.9	237.62	223.37	43.6	45.4	5.45	4.92
Textile Mill Products	1.6	1.5	181.17	173.20	39.3	40.0	4.61	4.33

The Roanoke Standard Metropolitan Statistical Area covers the cities of Roanoke and Salem and the counties of Botetourt, Craig, and Roanoke.

Average earnings are computed on a gross basis, reflecting not only changes in basic hourly and incentive wage rates, but also such variable factors as premium pay for overtime, late shift work, etc. Average weekly hours are the number of hours worked or paid for and are affected by such factors as absenteeism, turnover, overtime, etc.

ROANOKE STANDARD METROPOLITAN STATISTICAL AREA

The Roanoke Valley, defineable as the Roanoke SMSA, continued in 1980 to build the base for future economic growth of a diversified but thematic, coal-based, portfolio of major industries. Employment changes in the annual averages were small, almost regardless of how the sectors are divided. Nonfarm employment averaged 105,100, up 500 over the 1979 number. The goods-producing sector (mining, construction and manufacturing) encompassed 27,300 workers, up 100 with the providers of services numbering 77,800 employees, up 400.

Of Virginia's fifteen major labor market areas, Roanoke at a 4.4 percent unemployment rate ranked fourth, distinctly better than average, a traditional Roanoke status. The Roanoke area major labor market, like most others of the State, is classified by the U. S. Department of Labor as one of "moderate shortage" of personnel for jobs. But residents of Craig County, which is two-thirds national forest, shared the job problems of their rural neighbors. Over the past decade, the Roanoke area lost three notches in the national population ranking of SMSA's from 156th to 159th, with 1970 population of 203,153 and 1980 population of 223,578, a decennial increase of 10.1 percent. The census verified that about one of one thousand U. S. residents could properly call themselves residents of the All-American Roanoke Valley.

Leading indicators and first approximations to more elusive measures of economic welfare, some factors of the manufacturing wage bill were a 39.9 average hour week at $5.82 an hour, for 14,400 production workers, compared with 40.0 hours at $5.17 an hour in 1979 for a similar cohort of factory workers. "Stagflation" has become the all but official term to summarize such statistics as these, which show wages tracking the general inflation.

The momentum of some growth trends could be detected in the goods-producing sector. Rising export demands and relatively high capital expenditures (some financed by the Industrial Development Authority of the City of Roanoke) sustained development of more jobs in durable manufacture, especially for a maker of steel billets, a manufacturer of security locks and multinational manufacturers of electrical and electronic machinery, equipment and supplies. A Salem wood stove manufacturer, formerly employing several hundred, however, could not stave off corporate reorganization, partly the result of a blistering hot summer. The apparel industry, in the nondurable group, remained hurt by overseas markets, and continued to decline, for a fourth year.

Within a little changed construction division, the ascendancy of its service-type side was evident. Special trade contractors, for instance, pursued a steady course of growth, while building contractors veered off the expansion path, buffeted by inflation-interest turbulence. On the retail end of the construction industry, the sale of do-it-yourself home-building materials flourished, but has not yet led to a higher jobholding count. A large chain of such stores with headquarters in Roanoke laid plans for expansion in the area and elsewhere. Nationally in 1980, sales of materials used by do-it-yourselfers passed materials used for new construction.

The services-producing sector generated most of such gain as there was in employment, and here the gain was in the public part more than the private, an example of the stabilizing role of government in a recessionary period. In the category of local general government, CETA summer youth jobs were particularly helpful at a time when the broader economy was in a slump. The financial division with its endemic urge to merge and reorganize added to its collective work force, a growth trend through thick and thin. The complex of health services also could be counted upon to add new positions, a local participation in a national phenomenon.

Local belt-tightening squeezed an array of vunerable service industries. A large amusement part reported a relatively slow season. Eating and drinking places could not hold the gains of the year before. Several well-established, fair-sized car dealers were

pushed to the wall by high inventory-carrying costs. Regional as well as local economic contraction left its mark on Roanoke area job statistics. The transportation and public utility family of industries gave back part of 1979's advance as layoffs in the trucking and railroad industries pushed back annual average employment. Norfolk and Western railroad jobs lagged in the second half with slumping hard-goods traffic. It was booming European steam-coal demand, sparked in part by Polish and Australian mineworkers' strikes that helped keep N & W coal trains running, with the demand for metallurgical coal not so overheated.

An augury of future growth, bespeaking health of the economic infrastructure, was the highly profitable year managed by most of the large Roanoke-based common carriers. The Norfolk and Western Railway again ranked as the most profitable in the railway industry in 1980. N & W's Roanoke shops planned work on an order of 500 open-top coal cars. Outside of the Bell System (another common carrier), expanding Universal Communications Systems has made Roanoke "the interconnect capital of the world". Also, the aviation industry and coal-related electric utilities serving the area were no bottom-line slouches.

Some local academic, government, and bank economists concurred that 1980 was a confusing, spotty year, apt to issue in a hangover in 1981. An uncertain outlook hinged on the course of interest rates. More sanguine boosters of downtown Roanoke and the Valley noted that business openings downtown were exceeding closings by much better than the two to one ratio of 1977-79. An out-of-town developer floated a plan for a world coal center with as many as 1,000 employees, and got initial backing from Roanoke City and the Valley Chamber of Commerce. So Roanoke remains a valley with a story, the telling of which will continue.

John Langhorne

ESTIMATED EMPLOYMENT IN ROANOKE AREA NONAGRICULTURAL ESTABLISHMENTS BY MAJOR INDUSTRY DIVISIONS

ANNUAL AVERAGES 1976 - 1980

INDUSTRY GROUP	EMPLOYMENT (In Thousands of Employees)					Percent Change From	
	1980	1979	1978	1977	1976	1976	1980
NONAGRICULTURAL 1/	105.1	104.6	102.9	99.7	97.3	8.0	
MANUFACTURING	21.0	20.9	21.2	21.0	21.3	1.4	
Durable Goods	12.2	11.9	11.3	10.9	11.3	8.0	
Furniture and Fixtures	1.8	1.8	1.5	1.5	1.7	12.6	
Primary Metals and Fabricated Metal Products	2.6	2.5	2.1	2.0	1.7	52.9	
Machinery, except Electrical	1.7	1.7	1.7	1.6	1.7	0	
Other Durable Goods 2/	6.5	6.3	6.0	5.8	6.2	4.8	
Nondurable Goods	8.8	9.0	9.9	10.1	10.0	12.0	
Food and Kindred Products	1.9	2.0	2.3	2.2	2.1	9.5	
Textile Mill Products	1.8	1.8	2.1	2.1	1.9	5.3	
Apparel and Other Textile Products	1.5	1.8	2.0	2.5	2.7	40.7	
Printing and Publishing	.9	.9	.9	.9	.9	0	
Other Nondurable Goods 3/	2.6	2.5	2.6	2.4	2.4	8.3	
NONMANUFACTURING	84.1	83.7	81.7	78.7	76.0	10.7	
Mining	.1	.1	.2	.2	.2	50.0	
Construction	6.2	6.2	5.9	5.7	5.4	14.8	
General Building Contractors	1.4	1.5	1.3	1.3	1.4	0	
Heavy Construction Contractors	1.6	1.6	1.6	1.5	1.4	14.3	
Special Trade Contractors	3.2	3.1	3.0	2.9	2.6	23.1	
Transportation and Public Utilities	9.9	10.1	9.1	9.9	10.1	2.0	
Railroad Transportation	4.6	4.7	3.7	4.9	5.1	9.8	
Local and Interurban Passenger Transit	.3	.4	.4	.4	.4	25.0	
Trucking and Warehousing	1.8	2.0	2.0	1.8	1.8	0	
Wholesale and Retail Trade	25.8	26.1	25.8	24.5	23.4	10.2	
Wholesale Trade	7.4	7.4	7.5	7.0	6.9	7.2	
Retail Trade	18.4	18.7	18.3	17.5	16.5	11.5	
Building Materials and Garden Supplies	.9	.9	.9	.8	.7	28.6	
General Merchandise Stores	3.5	3.4	3.3	3.1	3.0	16.7	
Food Stores	2.6	2.7	2.7	2.5	2.5	4.0	
Automotive Dealers and Service Stations	2.3	2.5	2.5	2.4	2.3	0	
Apparel and Accessory Stores	1.2	1.2	1.2	1.1	1.1	9.1	
Furniture and Home Furnishings Stores	.8	.9	.8	.8	.8	0	
Eating and Drinking Places	4.6	4.8	4.6	4.5	3.8	21.0	
Miscellaneous Retail	2.5	2.3	2.3	2.3	2.3	8.7	
Finance, Insurance and Real Estate	6.3	6.1	5.8	5.5	5.3	18.9	
Banking	1.7	1.6	1.6	1.4	1.4	21.4	
Insurance Carriers	2.2	2.2	2.1	2.0	2.0	10.0	
Real Estate and Other Finance and Insurance	1.3	1.2	1.2	1.3	1.2	8.3	
Services	19.6	19.5	19.0	18.1	17.8	10.1	
Hotels and Other Lodging Places	1.1	1.1	1.3	1.4	1.4	21.4	
Personal Services	1.3	1.3	1.3	1.3	1.4	7.1	
Business Services	2.6	2.6	2.2	1.8	1.8	44.4	
Automobile Repair, Services and Garages	.9	.9	.8	.7	.6	50.0	
Amusement and Recreation Services	.6	.7	.6	.6	.5	20.0	
Health Services	6.8	6.7	6.7	6.6	6.3	7.9	
Educational Services	1.4	1.3	1.1	1.0	1.1	27.3	
Membership Organizations	2.0	2.0	1.9	2.0	2.0	0	
Government	16.2	15.6	15.9	14.8	13.8	17.4	
Federal Government	3.3	3.1	3.1	3.0	3.0	10.0	
State and Local Government	12.9	12.5	12.8	11.8	10.8	19.4	
Education	6.4	6.4	6.3	6.1	6.0	6.7	
General	6.5	6.1	6.5	5.7	4.8	35.4	

Estimates include all full time and part time wage and salary workers who worked during or received pay for the pay period including the twelfth of the month. Self employed persons are excluded. Employment series have been adjusted to December 1978 benchmark levels. Industrial classification structure based on 1972 Standard Industrial Classification Manual.

The Roanoke Standard Metropolitan Statistical Area covers the cities of Roanoke and Salem and the counties of Botetourt, Craig and Roanoke.

1/ Not comparable with data for years prior to 1970. The counties of Botetourt and Craig included in area definition beginning with data for January 1970.

2/ Includes lumber and wood products, stone, clay and glass products, electric and electronic equipment, transportation equipment, instruments and related products, and miscellaneous manufacturing industries.

3/ Includes tobacco manufactures, paper and allied products, chemicals and allied products, rubber and plastics products and leather and leather products.

NEWPORT NEWS—HAMPTON STANDARD METROPOLITAN STATISTICAL AREA

Fighting the economic current, Peninsula employment leapt dramatically in 1980. Despite inflation, record interest rates, miserable house and auto sales, and the construction slump, the 4.4 percent annual increase in the nonagricultural estimate compensated for last year's relatively poor showing.

Shipbuilding helped the area keep its head above water. In contrast to 1979, shipyards were mainly responsible for the 7.8 percent revival in manufacturing. The April signing of a forty-two month contract between Newport News Shipbuilding and Drydock Company and the U. S. Steelworkers ended a two-year struggle. Employment has steamed forward since. Year's end found the company with a work backlog of $2.5 billion, including two nuclear aircraft carriers and eight nuclear submarines plus hundreds of millions of dollars in "jumboizing" and overhauls. Furthermore, the new emphasis on national defense could keep area shipbuilders busy for years to come. Consequently, Newport News Shipbuilding is investing $50 million for new equipment and tools and improved facilities, while another large shipyard has initiated a $6 million expansion.

Employment changes at other manufacturers are often swamped by small percentage fluctuations in shipbuilding. Nevertheless, there were some noteworthy developments. Last year sharp gains in other durable goods muted the effect of the Steelworkers' strike. Unfortunately, layoffs at a manufacturer of turbine components and at a zipper producer dragged on through most of this year. The former was primarily due to high interest rates while the latter had its origin in fashion trends. Another negative influence was an oil refinery strike. Happily, though, the good news outweighs the bad. New area firms include producers of trucks and liquid nitrogen and a bottle maker whose entire output is bought by a Williamsburg brewery. The brewery itself is expanding. When full production is reached it should employ over one thousand workers. Surprisingly, one company with ties to the auto industry has also done well. A fuel injection system is its major product.

Port activity anchored the Peninsula economy. In fact it is possible that Hampton Roads' 1980 harbor tonnage will surpass New York's for the first time ever. The main reason: a phenomenal increase in coal exports. Earlier in the year dumping capacity reached record levels, yet over one hundred colliers were waiting to fill their holds in mid-December. Burgeoning demand has sent businessmen scrambling to convert other facilities to coal piers as well as initiate construction of new dumping sites. Not all waterfront activities fared as well. A record summer heat wave left Chesapeake Bay unseasonably warm into late fall. This suppressed the fish population. Resulting high prices, augmented by fuel costs and marketing problems, have made chicken and pork attractive alternatives to seafood. Fishermen and packers have suffered. However, an area seafood park and an established packer are expanding their facilities, so pessimism is not rampant. Also of note, a new shipline has been attracted to the area as well as a major grain exporter.

Local businesses enjoy tourists as much as the tourists enjoy themselves. Particularly around Williamsburg tourism is an important and growing industry. For example, one factory outlet in Lightfoot is already the largest single-cite retailer in Virginia. An addition is under way which will more than double present floor space. Attendance at an amusement park associated with the brewery reached 2.16 million, a 12.5 percent improvement over the year. And another large complex in Williamsburg is projected to attract approximately one million visitors each of the next five years. This is far from a comprehensive list. The excellent tourist season helps to explain the 3.4 percent increase in nonmanufacturing employment during a so-called recession. In the trades restaurants and miscellaneous retailers benefitted. These gains offset losses at auto and home-related retailers, while the upswing in the services corrected the downtrend in construction.

Government remains the principal employer in the Peninsula, but its composition has shifted in recent years. Federal growth has leveled off while local government, with the help of federally-funded programs, has soared. Uncle Sam has provided money for housing projects, a steam plant fueled by trash, neighborhood and downtown revitalization, and other community development, but November's election may dry the federal well. While the increase in defense spending should minimize any economic impact, we may see a reversal of local government growth.

All things considered it is fair to say, "Not bad for a bad year."

Howard Luther

EMPLOYMENT IN NEWPORT NEWS–HAMPTON AREA NONAGRICULTURAL ESTABLISHMENTS BY MAJOR INDUSTRY DIVISIONS

ANNUAL AVERAGES 1976 - 1980

INDUSTRY GROUP	EMPLOYMENT (In Thousands of Employees)					Percent Change From 1976 – 1980
	1980	1979	1978	1977	1976	
NONAGRICULTURAL 1/	152.3	145.9	144.6	139.3	135.5	12.4
MANUFACTURING	34.7	32.2	34.1	34.6	32.8	5.8
Durable Goods	28.3	26.0	28.1	28.9	27.5	2.9
Stone, Clay and Glass Products	.6	.3	.3	.3	.3	100.0
Transportation Equipment	23.9	21.5	24.2	25.1	24.1	- .8
Other Durable Goods 2/	3.8	4.2	3.6	3.5	3.1	22.6
Nondurable Goods	6.4	6.2	6.0	5.7	5.3	20.8
Food and Kindred Products	2.9	2.6	2.4	2.3	2.0	45.0
Textile Mill Products and Apparel and Other Textile Products	.6	.7	.7	.7	.7	- 14.3
Printing and Publishing	1.1	1.1	1.1	1.0	1.0	10.0
Other Nondurable Goods 3/	1.8	1.8	1.8	1.7	1.6	12.5
NONMANUFACTURING	117.6	113.7	110.5	104.7	102.7	14.5
Construction	7.2	7.5	7.5	6.2	6.5	10.8
General Building Contractors	2.9	2.9	2.8	2.0	2.4	20.8
Heavy Construction Contractors	.9	1.0	1.0	.9	.9	0
Special Trade Contractors	3.4	3.6	3.7	3.3	3.2	6.2
Transportation and Public Utilities	5.1	5.1	4.8	4.6	4.6	10.9
Railroad Transportation	.9	.9	.8	.9	.8	12.5
Water Transportation	.5	.5	.5	.4	.3	66.7
Wholesale and Retail Trade	28.8	28.1	27.2	25.8	25.1	14.7
Wholesale Trade	3.4	3.3	3.2	3.2	3.1	9.7
Retail Trade	25.4	24.8	24.0	22.6	22.0	15.4
Building Materials and Garden Supplies	.8	.9	.9	.7	.7	14.3
General Merchandise	4.5	4.6	4.4	4.2	4.2	7.1
Food Stores	3.7	3.7	3.7	3.5	3.4	8.8
Auto Dealers and Service Stations	2.7	2.9	3.1	3.1	3.1	- 12.9
Apparel and Accessory Stores	1.7	1.5	1.3	1.3	1.3	30.8
Furniture and Home Furnishings Stores	1.0	1.0	.9	.9	.9	11.1
Eating and Drinking Places	7.0	6.6	6.5	5.8	5.3	32.1
Miscellaneous Retail	4.0	3.6	3.2	3.1	3.1	29.0
Finance, Insurance and Real Estate	5.1	5.0	4.8	4.6	4.3	18.6
Banking	1.5	1.5	1.4	1.3	1.3	15.4
Real Estate	1.9	1.9	1.9	1.9	1.7	11.8
Services and Mining	28.6	27.0	26.5	25.2	24.7	15.8
Hotels and Other Lodging Places	4.7	4.8	5.1	4.8	4.8	- 2.1
Personal Services	1.5	1.4	1.4	1.4	1.3	15.4
Business Services	3.2	3.6	3.2	3.0	2.9	10.3
Health Services	6.9	6.6	6.3	6.0	5.5	25.4
Educational Services	2.4	2.0	2.1	2.0	2.1	14.3
Membership Organizations	1.8	1.6	1.6	1.6	1.5	20.0
Miscellaneous Services	.9	.9	.9	1.1	1.2	- 25.0
Government	42.8	41.0	39.7	38.3	37.5	14.1
Federal Government	17.1	16.8	17.0	17.1	17.0	.6
State and Local Government	25.7	24.2	22.7	21.2	20.5	25.4
State	6.0	6.2	5.9	5.6	5.4	11.1
Local	19.7	18.0	16.8	15.6	15.1	30.5

Estimates include all full-time and part-time wage and salary workers who worked during or received pay for the pay period including the twelfth of the month. Self-employed persons are excluded. Employment series have been adjusted to December 1978 benchmark levels. Industrial classification structure based on 1972 Standard Industrial Classification Manual.

The Newport News - Hampton Standard Metropolitan Statistical Area covers the cities of Hampton, Newport News, Poquoson and Williamsburg and the counties of James City, York and Gloucester.

1/ Not comparable with data for years prior to 1975. The cities of Poquoson and Williamsburg and the county of James City, included in the metropolitan area series beginning with data for January 1970. The county of Gloucester is not included in statistics prior to 1975.

2/ Includes lumber and wood products, furniture and fixtures, primary metal industries, fabricated metal products, machinery except electric, electric and electronic equipment, instruments and related products, and miscellaneous manufacturing industries.

3/ Includes tobacco manufactures, paper and allied products, chemicals and allied products, petroleum and coal products, and leather and leather products.

NORFOLK—VIRGINIA BEACH—PORTSMOUTH STANDARD METROPOLITAN STATISTICAL AREA

The economy of the Norfolk—Virginia Beach—Portsmouth Standard Metropolitan Statistical Area during 1980 has been described as having the behavior of a roller coaster. Both ups and downs were recorded as the area tried to maintain the level of prosperity it had enjoyed in previous years. For the first time since the recessionary years of 1974 and 1975, annual average employment declined. Nonagricultural employment averages 284,200 in 1980 — 1,200 below the 1979 average. The drop occurred in construction, manufacturing, trade, and transportation and public utilities. Services and government, which make up almost 48 percent of the area's employment, experienced increases in worker totals. Not only were there ups and downs in annual averages in the major industry divisions but month-to-month changes also followed a pattern of rises and declines and not the usual cyclical trends. Many of the problems in the area stemmed from rapid fluctuations in interest rates, especially in the interest-sensitive businesses of housing and automobiles.

Government employment was 700 higher in 1980 than in 1979. Although December's employment count was less than January's, the employing of large numbers of temporary workers between February and September to count the 1980 census boosted the average. Some gain was made by local governments to meet the growing needs of the community. Although the SMSA is insulated by a steady military payroll from the sharpest peaks and valleys of a rocky national economy, during the year services employment, nevertheless, experienced ups and downs. Seasonal trends dominated, since much of service business is geared to both tourism and holidays. An over-the-year gain of 1,300 was recorded. According to travel officials, despite an 18 percent drop in the travel industry nationwide, Tidewater held its own. The number of tourists visiting Virginia Beach was above the 1979 figure, and perhaps more important, revenues generated by tourists were up. The fall tourist season was particularly pleasing to area businesses.

The Port of Hampton Roads plays an intricate role in the lives of almost everyone in the locality. Many tons of a large variety of products flow in and out of the port yearly. During 1980 coal emerged to capture the attention and concern of the maritime community. After many years of residing in the shadow of cheaper, cleaner-burning oil, economics forced the world into a new reliance on coal for energy. Virginia Port Authority estimates reveal for the past fifty years, 75 percent or more of America's foreign-bound coal was shipped through the port. A record fifty million tons were moved during 1980. New coal piers, more storage capacity and deeper ship channels are needed for the port to remain the dominant coal-export center and plans are being formulated to insure its predominance. Deeper channels would also benefit grain shipments, which were almost six million tons in 1980 — double the level of five years ago. While general cargoes and miscellaneous merchandise totals only three to four million tons of port volume annually, they are divided almost equally between imports and exports. All totaled, the harbor handled an estimated 67 million tons of cargo during the year. Modern technology has permitted the industry to move more goods with fewer workers.

The trade sector also operated with fewer workers. Layoffs and shorter hours were cost-cutting measures to counterbalance turbulences in sales. While sales were hampered by high interest rates, heavy promotions and price-cutting were used as tools to keep business flowing and cash flows moving. The credit crunch early in the year created havoc with buying, and the trade industry sighed with relief when credit controls softened. Christmas spending was late in coming but business the last five days before the holiday was for many merchants the biggest ever. Two new major shopping malls, Lynnhaven and Greenbrier, emerged late in the year — an expression of confidence in the future growth of the area.

Both goods-producing sectors of the economy saw over-the-year declines. Construction's downturn was much more severe than manufacturing's. During both 1979 and 1980 construction employment trended down. While the need for new housing remained present, high interest rates kept potential buyers out of the marketplace. Many builders

believe interest rates were the sole reason for the decline in residential building in both single-family housing and apartment units. Cutbacks were also recorded in heavy and highway construction. Special trade contractors' decline was not to the extent of other phases of the industry since many homeowners opted for renovations and repair work instead of new living quarters.

Manufacturing workers comprise about ten percent of total nonagricultural employment in the area, and the 800 decline in average employment between 79 and 80 was spread among both durable and nondurable goods producers. Only in the machinery, except electrical and printing segments, were there increases in the number of workers on payrolls. Industries that supply builders — lumber and stone, clay and glass products — saw the rippled effects of construction's problems. Highs in shipbuilding employment were noted during the last four months of the year. However, the downs of the automobile business during the entire year eroded shipbuilders' gains. Virginia's unusually dry summer had an unfavorable effect on food processors. Other decreases were relatively small but indicative of a slowed economy. Average weekly earnings of the area's 22,500 production workers were $271.21 — $15.57 more than last year. Hourly earnings rose 46 cents to $6.68. A five-tenths of an hour decline in working hours left workers with a 40.6 average hourly workweek. Even though 1980 was described as a sluggish year for attracting industry to South Hampton Roads, some new firms have indicated a desire to settle in the area.

For 1981 numerous predictions have been made. Increased employment, less unemployment, improved retail sales, high levels of port traffic, a rise in home and apartment building, and a general improvement in economic activity are but a few. While it is too early to know if these prophecies will come true, the area's business people continue to strive to make the forecasts a reality.

Ruby L. Butler

EMPLOYMENT IN NONAGRICULTURAL ESTABLISHMENTS NORFOLK-VIRGINIA BEACH-PORTSMOUTH AREA BY MAJOR INDUSTRY DIVISIONS

ANNUAL AVERAGES 1976 - 1980

INDUSTRY GROUP	EMPLOYMENT (In Thousands of Employees)					Percent Change From
	1980	1979	1978	1977	1976	1976 - 1980
NONAGRICULTURAL 1/	284.2	285.4	277.9	260.9	251.2	13.1
MANUFACTURING	29.3	30.1	29.0	27.5	26.2	11.8
Durable Goods	17.4	17.7	16.9	15.9	14.7	18.4
Lumber and Wood Products	1.7	1.8	1.8	1.8	1.7	0
Stone, Clay and Glass Products	1.7	1.9	1.8	2.0	2.0	- 15.0
Fabricated Metal Products	1.0	1.0	1.0	.9	.9	11.1
Fabricated Structural Metal Products	.9	.8	.8	.8	.8	12.5
Machinery, except Electrical	1.2	1.0	.9	.8	.8	50.0
Transportation Equipment	7.4	7.5	7.0	6.2	5.0	48.0
Other Durable Goods 2/	4.4	4.5	4.4	4.2	4.3	2.3
Nondurable Goods	11.9	12.4	12.1	11.6	11.5	3.5
Food and Kindred Products	5.7	6.0	5.8	5.8	5.5	3.6
Apparel and Other Textile Products	.9	1.0	1.0	.8	.8	12.5
Printing and Publishing	2.4	2.2	2.1	2.1	2.1	14.3
Chemicals and Allied Products	1.4	1.6	1.6	1.5	1.7	- 17.6
Agricultural Chemicals	.7	.8	.8	.7	.9	- 22.2
Other Nondurable Goods 3/	1.5	1.6	1.6	1.4	1.4	7.1
NONMANUFACTURING	254.9	255.3	248.9	233.4	225.0	13.3
Construction	15.9	17.8	18.3	16.6	15.2	4.6
General Building Contractors	3.2	4.2	4.4	3.8	3.3	- 3.0
Heavy Construction Contractors	3.5	4.0	4.0	3.8	3.5	0
Special Trade Contractors	9.2	9.6	9.9	9.0	8.4	9.5
Transportation and Public Utilities	19.0	19.3	18.0	17.7	17.6	8.0
Railroad Transportation	1.5	1.5	1.2	1.8	2.0	- 25.0
Local and Interurban Passenger Transit	1.5	1.6	1.7	1.7	1.7	- 11.8
Trucking and Warehousing	3.4	3.5	3.4	3.3	3.2	6.2
Water Transportation	4.7	4.9	4.5	4.3	4.4	6.8
Transportation Services	.9	.9	.8	.8	.8	12.5
Wholesale and Retail Trade	69.0	69.2	67.0	63.5	60.5	14.0
Wholesale Trade	14.6	14.7	14.4	13.6	12.8	14.1
Retail Trade	54.4	54.5	52.6	49.9	47.7	14.0
Building Materials and Garden Supplies	1.9	2.0	2.0	1.9	1.8	5.6
General Merchandise Stores	9.9	10.1	10.1	9.9	9.3	6.4
Food Stores	9.0	8.7	8.4	7.6	7.5	20.0
Automotive Dealers and Service Stations	6.3	6.7	6.9	6.3	6.2	1.6
Apparel and Accessory Stores	2.8	2.8	2.8	2.8	3.0	- 6.7
Furniture and Home Furnishings Stores	2.8	2.8	2.6	2.7	2.6	7.7
Eating and Drinking Places	16.3	16.1	14.7	13.4	12.1	34.7
Miscellaneous Retail	5.4	5.3	5.1	5.3	5.2	3.8
Finance, Insurance and Real Estate	14.6	14.6	14.1	13.3	12.9	13.2
Banking	4.4	4.3	4.2	3.9	3.7	18.9
Credit Agencies other than Banks	1.9	2.0	1.9	1.8	1.7	11.8
Insurance Carriers	2.0	2.1	2.0	1.9	1.9	5.3
Insurance Agents, Brokers and Services	1.1	1.0	1.0	.9	.9	22.2
Real Estate and Other Finance and Insurance	4.0	4.1	4.1	3.9	3.8	5.3
Services and Mining	54.9	53.6	51.3	46.5	43.9	25.0
Hotels and Lodging Places	3.9	4.2	3.8	3.5	3.7	5.4
Personal Services	4.1	4.3	4.3	4.2	4.0	2.5
Business Services	10.3	9.2	8.3	7.0	5.9	74.6
Automobile Repair, Services and Garages	1.8	1.8	1.8	1.6	1.4	28.6
Miscellaneous Repair Services	.9	1.0	1.2	1.1	1.0	- 10.0
Motion Pictures	.5	.5	.5	.4	.5	0
Amusement and Recreation Services	1.7	1.8	1.8	1.8	1.7	0
Health Services	17.8	17.3	16.8	15.7	15.1	17.9
Legal Services	1.5	1.4	1.3	1.2	1.1	36.4
Educational Services	2.1	2.0	1.8	1.4	1.3	61.5
Social Services	2.9	2.6	2.4	2.2	1.7	70.6
Membership Organizations	3.5	3.3	3.4	3.2	3.4	2.9
Miscellaneous Services	2.6	2.8	2.8	2.5	2.4	8.3
Government	81.5	80.8	80.2	75.8	74.9	8.8
Federal Government	37.0	36.6	36.6	35.6	35.5	4.2
State and Local Government	44.5	44.2	43.6	40.2	39.4	12.9
Education	23.1	22.9	21.8	20.8	20.7	11.6
General	21.4	21.3	21.8	19.4	18.7	14.4

Estimates include all full time and part time wage and salary workers who worked during or received pay for the pay period including the twelfth of the month. Self employed persons are excluded. Employment series have been adjusted to December 1978 benchmark levels. Industrial classification structure based on 1972 Standard Industrial Classification Manual.

The Norfolk - Virginia Beach - Portsmouth Standard Metropolitan Statistical Area covers the cities of Chesapeake, Norfolk, Portsmouth, Suffolk, and Virginia Beach, Virginia and the county of Currituck, North Carolina.

1/ Not comparable with data for years prior to 1970 due to change in geographic composition of the area. The city of Suffolk and the county of Currituck, North Carolina were included in the employment series beginning with January 1970 data.

2/ Includes furniture and fixtures, primary metal industries, instruments and related products, and miscellaneous manufacturing industries.

3/ Includes tobacco manufactures, textile mill products, paper and allied products, rubber and miscellaneous plastics products, leather and leather products.

ESTIMATED NUMBER OF PRODUCTION WORKERS AND HOURS AND GROSS EARNINGS OF THESE WORKERS IN SELECTED MANUFACTURING INDUSTRIES

ANNUAL AVERAGES 1979 & 1980

NORFOLK - VIRGINIA BEACH - PORTSMOUTH STANDARD METROPOLITAN STATISTICAL AREA

INDUSTRY GROUP	Production Workers (In Thousands)		ANNUAL AVERAGES Average Weekly Earnings		Average Weekly Hours		Average Hourly Earnings	
	1980	1979	1980	1979	1980	1979	1980	1979
MANUFACTURING	22.5	23.4	$271.21	$255.64	40.6	41.1	$6.68	$6.22
Durable Goods	14.4	14.8	290.99	278.64	41.1	41.9	7.08	6.65
Lumber and Wood Products	1.6	1.7	210.75 1/	205.80	39.1	39.5	5.39 1/	5.21
Stone, Clay and Glass Products	1.3	1.4	231.86	225.23	39.1	41.1	5.93	5.48
Fabricated Metal Products	.6	.6	221.81	203.21	41.0	40.4	5.41	5.03
Machinery, except Electrical	1.0	.9	231.09	210.48	40.4	40.4	5.72	5.21
Transportation Equipment	6.4	6.6	365.04	354.48	43.2	44.2	8.45	8.02
Nondurable Goods	8.1	8.6	237.80	214.24	39.9	39.6	5.96	5.41
Food and Kindred Products	4.0	4.2	222.15	201.50	40.1	39.9	5.54	5.05
Apparel and Other Textile Products	.7	.8	151.79	132.94	36.4	34.8	4.17	3.82
Chemicals and Allied Products	1.3	1.1	235.62	212.66	39.8	40.2	5.92	5.29

The Norfolk - Virginia Beach - Portsmouth Standard Metropolitan Statistical Area covers the cities of Chesapeake, Norfolk, Portsmouth, Suffolk, and Virginia Beach, Virginia and the county of Currituck, North Carolina.

1/ Not comparable with data for prior years.

NORTHERN VIRGINIA METROPOLITAN STATISTICAL AREA

INDUSTRY GROUP	Production Workers (In Thousands)		ANNUAL AVERAGES Average Weekly Earnings		Average Weekly Hours		Average Hourly Earnings	
	1980	1979	1980	1979	1980	1979	1980	1979
MANUFACTURING	9.1	9.0	$277.01	$250.80	39.8	40.0	$6.96	$6.27
Durable Goods	5.5	5.5	265.52	246.85	40.6	40.6	6.54	6.08
Stone, Clay and Glass Products	.9	.9	224.07	214.11 1/	38.5	39.0 1/	5.82	5.49 1/
Fabricated Metal Products	.9	.9	280.16	266.91	41.2	42.3	6.80	6.31
Electric and Electronic Equipment	2.2	2.2	297.89	266.68	42.8	41.8	6.96	6.38
Nondurable Goods	3.6	3.5	291.43	256.47	38.6	38.8	7.55	6.61
Food and Kindred Products	.4	.4	294.38	259.36 1/	41.0	41.3	7.18	6.28 1/

The Northern Virginia Metropolitan Statistical Area covers the cities of Alexandria, Fairfax, Falls Church, Manassas, and Manassas Park and the counties of Arlington, Fairfax, Loudoun, and Prince William.

Average earnings are computed on a gross basis, reflecting not only changes in basic hourly and incentive wage rates, but also such variable factors as premium pay for overtime, late shift work, etc. Average weekly hours are the number of hours worked or paid for and are affected by such factors as absenteeism, turnover, overtime, etc.

1/Not comparable with data for prior years.

NORTHERN VIRGINIA

For a long time, the Northern Virginia Area has been insulated against a recessionary period by government employment. However, with subdued growth occurring in the public sector, the area is becoming less dependent on government and more vulnerable to the fluctuations of private industry. Amid gloomy stories about this situation, employment forged on, although at a slower pace than in past years.

The bustling of activity was significant in Virginia's largest metropolitan area during 1980. Contrasting trends developed as new firms moved into the area and some, swept under by downturns in the economy, closed their doors to the community. Among the largest newcomers was the Long Lines Eastern Regional Headquarters of A.T. & T., which deserted downtown Washington and brought 1,500 employees to a new computer site in Oakton. Mobil Oil's U. S. Marketing and Refinery Division, formerly located in Manhattan, moved 800 of its 1,100 division employees to Fairfax County. G. T. E.'s Telenet started a move to Fairfax County in 1979 with 200 workers, and by 1980 had a payroll of 800. According to the Fairfax County Economic Development Authority, the county has increased substantially in trade and professional associations, electronic-computer-research firms, corporate headquarters and contract construction firms. Even with retail sales off, Fair Oaks Center, the biggest shopping mall in the Washington Area, opened its doors in August. Although it was not operating at full strength, it has the capacity to handle $200 million in sales per year.

The goods-producing segment of nonagricultural employment demonstrated a yo-yo effect in 1980. New firms and expansions pushed up electric and electronic equipment employment. Sperry Corporation consolidated its Northern Virginia employment at a $4.5 million research and development facility in Reston. The employees had been located in three leased facilities in the area. Printing and publishing, apparel and other textile products and chemicals and allied products also added workers to payrolls. Looking at monthly trends, one could see a slow, but steady growth in these industries. Northern Virginia's 9,100 production workers average $6.96 an hour in 1980, an increase of eleven percent over the previous year. Average weekly hours dipped two-tenths of an hour from 40.0 in 1979 to 39.8 in 1980. Up $26.21 over the previous year's figure, average weekly earnings were $277.01 in 1980.

On the other hand, construction fell vulnerable to high interest rates. In most areas, interest rates were blamed entirely for the downward movement in construction, but Northern Virginia has an additional problem. Prime land for single homes has almost disappeared, and developers feel they can only move so far out into the surrounding counties. A sustaining force for employers was that the energetic Northern Virginia area came through with its needs for more office space, industrial parks and growing shopping malls. Tysons Corner, Annandale, Reston and McLean's central business district are a few of the areas highly concentrated with new office building construction.

Service-producing industries overall added to payrolls in 1980. Transportation and public utilities maintained its positive movement during the year, although ups and downs were recorded in the different sectors of the industry. In a report released by the Tayloe Murphy Institute, it was stated that transportation costs in Northern Virginia increased fifteen percent during the year. A ripple effect of these higher costs was noted in local and interurban passenger transit and transportation by air, both of which displayed a downturn last year. Another industry that was affected by higher prices was retail trade. In trying to minimize overhead, many general merchandise stores released sales people, and a few became practically self-service. This shift by management helped prevent retail trades from developing an upward trend.

Finance, insurance and real estate boosted employment over the year, even though growth in real estate was hampered by skyrocketing interest rates. In real estate, the annual average employment for 1980 was 100 below the 1979 level, but it still showed an increase of 23.8 percent over 1976. It is felt that if interest rates stabilize, consumers will be more apt to make large purchases such as homes, automobiles, and major appliances, and they will be less reluctant to go into debt. Much like construction, employers in these industries also have hope for improvements in 1981. As the population of an area grows, so does the need for the essential services provided by financial institutions. The sector hiked employment by 200 during the year.

Hotels and other lodging places and automobile repair services and garages gave a darker shade to the otherwise favorable picture painted by the services industries. As the price of gasoline jumped, people traveled less. Shorter, one-day trips became very popular. These excursions cut down on gasoline consumption and eliminated the need for a hotel room, making "mini-vacations" more economical and feasible for the middle-income family. In early spring, hotels added some workers to payrolls, but in the fall, seasonal cutbacks were much deeper than usual. On the brighter side, personal and business services rallied strongly during the year, increasing payrolls by 2,200 over 1979. Membership organizations' payrolls ballooned during 1980. Thirty-four professional and trade associations moved into Fairfax County during the year, pushing the total up to 159. (In 1970, there were only two in the county.) These associations represent a diverse mixture of industries and range in size from such large organizations as the National Automobile Dealers Association with their own multi-storied building and several hundred employees, to small headquarters with two or three employees and several hundred square feet of leased space.

Enumerators hired by the Commerce Department for the 1980 census helped raise the level of government employment in the area. From March to September, they were busy combing the streets of Northern Virginia in an effort to have an accurate as possible headcount of the residents. Although education employment increased, several elementary schools were closed by local governments. Declining school-age population was given as the cause of the closings.

Northern Virginia has shown its capabilities for growth in the business world. The area offers the best of two worlds to businesses; i.e., convenient access to the nation's capital and its numerous federal agencies, quick access to the largest repository of technical data in the world and quick contact with numerous supportive firms. While these advantages might also be found with a Washington location, the Virginia portion of the SMSA also offers lower operating costs, reduced traffic congestion, a more amendable lifestyle and a quality of life unique to the suburbia. With this in mind, forecasters are looking into 1981 as a strong year for growth in the economy.

Judith S. Thrash

ESTIMATED EMPLOYMENT IN NORTHERN VIRGINIA AREA NONAGRICULTURAL ESTABLISHMENTS BY MAJOR INDUSTRY DIVISIONS

ANNUAL AVERAGES 1976 - 1980

INDUSTRY GROUP	EMPLOYMENT (In Thousands of Employees)					Percent Change From
	1980	1979	1978	1977	1976	1976 - 1980
NONAGRICULTURAL	430.5	425.1	408.7	381.1	362.0	18.9
MANUFACTURING	17.1	16.5	15.4	14.3	13.5	26.7
Durable Goods	10.2	10.0	9.7	9.2	9.0	13.3
Stone, Clay and Glass Products	1.1	1.1	1.0	.7	.7	57.1
Fabricated Metal Products	1.2	1.2	1.1	1.1	1.1	9.1
Machinery, except Electrical	.6	.7	.7	.6	.6	0
Electric and Electronic Equipment	5.3	5.0	5.0	5.1	5.1	3.9
Other Durable Goods 1/	2.0	2.0	1.9	1.7	1.5	33.3
Nondurable Goods	6.9	6.5	5.7	5.1	4.5	53.3
Food and Kindred Products	1.1	1.1	1.1	1.2	1.3	- 15.4
Printing and Publishing	4.5	4.3	3.6	3.1	2.5	80.0
Other Nondurable Goods 2/	1.3	1.1	1.0	.8	.7	85.7
NONMANUFACTURING	413.4	408.6	393.3	366.8	348.5	18.6
Mining	.4	.4	.3	.3	.3	33.3
Construction	27.3	30.2	29.6	25.8	24.1	13.3
General Building Contractors	8.3	9.1	8.8	7.3	6.7	23.9
Heavy Construction Contractors	4.1	4.2	4.0	3.5	4.1	0
Special Trade Contractors	14.9	16.9	16.8	15.0	13.3	12.0
Transportation and Public Utilities	29.1	28.3	26.9	26.0	24.5	18.8
Railroad Transportation	1.1	1.1	1.1	1.2	1.1	0
Local and Interurban Passenger Transit	.9	1.0	1.1	1.3	.9	0
Trucking and Warehousing	4.9	4.9	4.3	4.1	3.9	25.6
Transportation by Air	8.6	8.9	8.9	8.9	8.8	- 2.3
Transportation Services	1.8	1.4	1.1	.9	.7	100.0
Communication	8.6	7.7	7.1	6.6	6.2	38.7
Electric, Gas and Sanitary Services	3.5	3.3	3.2	3.0	2.9	20.7
Wholesale and Retail Trade	98.4	98.6	96.1	90.8	86.1	14.3
Wholesale Trade	18.4	18.1	16.9	15.7	14.9	23.5
Wholesale Trade-Durable Goods	13.9	13.7	12.9	11.8	11.1	25.2
Wholesale Trade-Nondurable Goods	4.5	4.4	4.0	3.9	3.8	18.4
Retail Trade	80.0	80.5	79.2	75.1	71.2	12.4
Building Materials and Garden Supplies	2.9	2.9	2.8	2.7	2.5	16.0
General Merchandise Stores	12.4	13.2	13.2	12.6	11.8	5.1
Food Stores	9.1	9.1	9.0	8.8	8.5	7.0
Automotive Dealers and Service Stations	12.1	12.0	12.4	11.6	11.2	8.0
Apparel and Accessory Stores	5.3	4.9	5.2	4.9	4.7	12.8
Furniture and Home Furnishings Stores	3.7	3.8	3.8	3.5	3.2	15.6
Eating and Drinking Places	22.6	22.9	22.4	21.1	19.6	15.3
Miscellaneous Retail	11.9	11.3	10.4	9.9	9.7	22.7
Finance, Insurance and Real Estate	27.0	26.8	25.2	23.6	21.2	27.4
Banking	5.9	5.8	5.6	5.3	5.1	15.7
Credit Agencies other than Banks	3.9	3.8	3.5	3.0	2.2	77.3
Insurance Carriers	3.8	3.8	3.7	3.4	3.1	22.6
Insurance Agents, Brokers and Service	1.5	1.5	1.4	1.4	1.1	36.4
Real Estate	10.4	10.5	9.6	9.0	8.4	23.8
Services	112.4	107.6	100.2	89.3	82.8	35.7
Hotels and Other Lodging Places	6.4	6.5	6.1	5.7	5.6	14.3
Personal Services	6.1	5.9	5.9	5.7	5.3	15.1
Business Services	39.6	37.6	34.1	29.7	25.6	54.7
Auto Repair, Services and Garages	3.1	3.3	3.2	2.7	2.5	24.0
Miscellaneous Repair Services	1.2	1.2	1.0	.8	.8	50.0
Motion Pictures	.6	.7	.8	.6	.8	- 25.0
Amusement and Recreation Services	3.7	3.4	3.3	3.1	3.0	23.3
Health Services	20.3	19.6	18.6	17.8	16.8	20.8
Legal Services	2.6	2.6	2.5	2.3	2.1	23.8
Educational Services	3.9	3.6	3.5	3.4	3.4	14.7
Social Services	3.0	2.8	2.5	2.2	2.1	42.8
Membership Organizations	7.5	6.8	6.9	5.9	5.5	36.4
Miscellaneous Services	11.6	11.3	10.2	8.2	8.1	43.2
Agricultural Services	2.5	1.7	1.3	1.2	1.1	127.3
Government	118.8	116.7	115.0	111.0	109.5	8.5
Federal Government	67.6	66.4	65.6	64.6	64.7	4.5
State and Local Government	51.2	50.3	49.4	46.4	44.8	14.3
Education	30.1	29.3	28.9	28.3	28.0	7.5
General	21.1	21.0	20.5	18.1	16.8	25.6

Estimates include all full-time and part-time wage and salary workers who worked during or received pay for the pay period including the twelfth of the month. Self-employed persons are excluded. Employment series have been adjusted to December 1978 benchmark levels. Industrial classification structure in accordance with the 1972 Standard Industrial Classification Manual.

The Northern Virginia Area covers the cities of Alexandria, Fairfax, Falls Church, Manassas and Manassas Park and the counties of Arlington, Fairfax, Loudoun and Prince William.

1/ Includes lumber and wood products, furniture and fixture, primary metal industries, transportation equipment, instruments and related products, and miscellaneous manufacturing industries.

2/ Includes tobacco manufactures, textile mill products, apparel and other textile products, paper and allied products, chemicals and allied products, petroleum and coal products, and rubber and miscellaneous plastics products.

RICHMOND STANDARD METROPOLITAN STATISTICAL AREA

Despite the high unemployment rate and the slow economic growth, which has characterized the state of the economy as a whole, the Richmond area has managed to show gains in both manufacturing and nonmanufacturing employment for 1980. The work force has expanded 13.6 percent over the 1976 figure, but only three-tenths percent over 1979, to an approximate employment of 325,900.

Richmond manufacturers added two hundred employees to the job market. This was a four-tenths percent increase over 1979, compared with the 3.5 percent jump from 1978 to 1979. Layoffs, strikes, temporary and permanent plant shutdowns slowed growth in employment throughout the year. The lumber and wood, furniture and fixture, stone, clay and glass industries reported decreases in employment as a result of the cutbacks in construction. The lumber and wood products industry generally depends upon new construction for sixty percent of its business. Ten percent of all activities in the household appliance industry and eight percent of all activities in the household furniture business are generated by new construction. Machinery, primary metal, tobacco, and paper industries showed gains in employment; however, food and kindred products, as well as apparel and other textile products, reported decreases which can be traced to the poor economy. Even though the average weekly hours remained constant compared with the 1979 hours, the average weekly earnings at $314.80 increased $42.80 over 1979 figures. The Richmond area showed strength in its attraction of new businesses into the metropolitan area. A paper company, which is involved in paper making and paper cutting, opened its door in June employing over 200. Also, a commercial printing company which plans to make and print business forms will open in the near future.

Nonmanufacturing establishments reported a three-tenths percent increase in the work force or an addition of approximately 800 more employees to worker totals. Most of this increase can be traced to services and government, with construction and trade being the major offsets. Having an 11.6 percent decrease in employment, construction was truly hard-hit by the recession. Most of this decrease occurred because of poor housing starts — a result of high mortgage rates.

The seasonal ups and downs in real estate are usually predictable; however, during 1980 this predictability was not as obvious. As mortgage rates went up, sales went down. Sales in March and April are usually at an all-time high; however, in 1980, sales during these months were near the lowest and mortgage rates were at a peak. The Richmond Multiple Listing Service showed that 6,782 properties went under contract last year. In 1979, 8,224 were signed, which represents an 18 percent drop.

Trade, which is about 46.4 percent of the nonagricultural employment, showed a 2.2 percent drop in the work force. Department stores and auto dealerships experienced most of this downward trend. A decrease in "customer traffic" can be credited with the layoffs, shorter-schedule workweeks and permanent closings which characterized the activities of this industry throughout the year. In spite of these declining trends, several new food stores have opened in the Richmond area. Safeway opened two new stores and Winn Dixie one. Jefferson Ward opened three new stores which helped employment in the department store division.

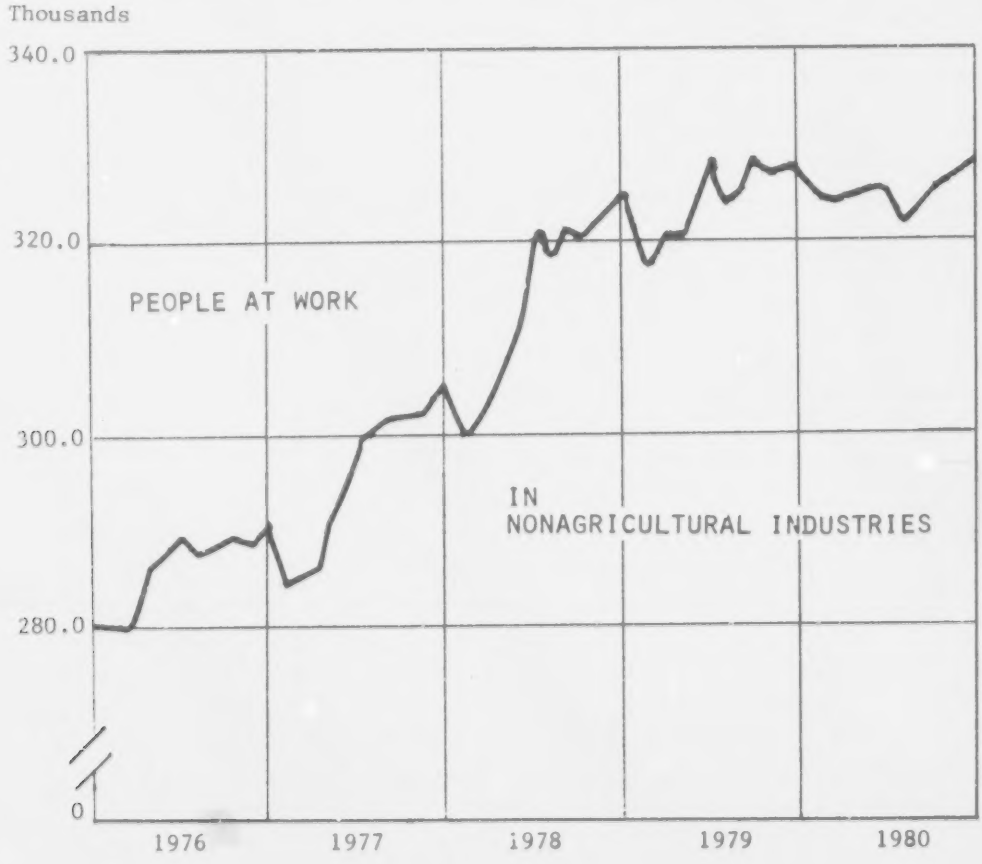
The Metropolitan Richmond Chamber of Commerce reported that the convention business was up about 12 percent over 1979. One of the main attractions of Richmond was that motels and hotels offered 30 to 50 percent less in accommodation cost than in areas such as New York and Washington. The Chamber estimated 2,380 chartered tour buses visited the city, generating a revenue intake of $5.3 million. Amusement parks reported the usual seasonal fluctuations throughout the year. The effects of the economy were quite obvious with the laying off of some permanent employees in December. Tourism for the year declined 7.9 percent, which put a damper on services' employment in general.

Government showed a 2.2 percent increase in employment. Most of this increase came as a result of temporary jobs. Federally-funded CETA programs created temporary summer jobs, and the Bureau of the Census added temporary employees to the work force during the spring and summer months.

The Richmond area has continued to grow and prosper. The recent census statistic showed that the Richmond Standard Metropolitan Statistical Area is now the 62nd largest area in the nation. This is a 15 percent gain over the 1970 census. The Metropolitan Economic Development Council is working with about sixty firms that are interested in moving into this area within the next two years. If all of these firms locate in the Richmond Metropolitan Area, about 1,550 jobs would be added and the impact on the economy of the Richmond area would be widespread.

Sandra E. Anderson

RICHMOND STANDARD METROPOLITAN STATISTICAL AREA



ESTIMATED EMPLOYMENT IN RICHMOND AREA NONAGRICULTURAL ESTABLISHMENTS BY MAJOR INDUSTRY DIVISIONS

ANNUAL AVERAGES 1976 - 1980

INDUSTRY GROUP	EMPLOYMENT (In Thousands of Employees)					Percent Change From
	1980	1979	1978	1977	1976	1976 - 1980
NONAGRICULTURAL 1/	325.9	324.9	314.2	296.6	286.9	13.6
MANUFACTURING	55.6	55.4	53.5	52.0	51.8	7.3
Durable Goods	17.8	17.9	17.0	16.4	15.9	11.9
Lumber and Wood Products	1.4	1.6	1.4	1.5	1.7	- 17.6
Furniture and Fixtures	2.2	2.3	2.2	2.0	1.5	46.7
Stone, Clay and Glass Products	1.2	1.3	1.3	1.3	1.3	- 7.7
Fabricated Metal Products	2.5	2.5	2.4	2.4	2.2	13.6
Machinery, except Electrical	2.1	2.0	2.0	2.1	2.3	- 8.7
Other Durable Goods 2/	8.4	8.2	7.7	7.1	6.9	21.7
Nondurable Goods	37.8	37.5	36.5	35.6	35.9	5.3
Food and Kindred Products	4.3	4.4	4.2	4.2	4.2	2.4
Tobacco Manufactures	12.3	11.8	11.2	10.6	10.9	12.8
Apparel and Other Textile Products	2.3	2.5	2.5	2.5	2.6	- 11.5
Paper and Allied Products	4.2	4.1	3.9	3.8	3.7	13.5
Printing and Publishing	5.1	5.1	5.0	4.8	4.8	6.2
Chemicals and Allied Products	7.6	7.7	7.8	7.9	8.1	- 6.2
Other Nondurable Goods 3/	2.0	1.9	1.9	1.8	1.6	25.0
NONMANUFACTURING	270.3	269.5	261.7	244.6	235.1	15.0
Mining	.4	.4	.4	.3	.3	33.3
Construction	16.8	19.0	19.0	17.1	16.0	5.0
General Building Contractors	3.7	4.7	4.6	4.3	3.7	0
Heavy Construction Contractors	3.5	3.4	3.0	2.4	2.4	45.8
Special Trade Contractors	9.6	10.9	11.4	10.4	9.9	- 3.0
Transportation and Public Utilities	19.7	19.4	18.6	18.2	17.9	10.0
Railroad Transportation	1.8	1.8	2.0	2.2	2.1	- 14.3
Trucking and Warehousing	6.6	6.7	6.5	6.4	6.3	4.8
Wholesale and Retail Trade	73.0	74.7	73.4	68.5	66.2	10.3
Wholesale Trade	22.0	22.0	21.7	20.6	19.8	11.1
Retail Trade	51.0	52.7	51.7	47.9	46.4	9.9
Building Materials and Garden Supplies	1.5	1.6	1.5	1.4	1.4	7.1
General Merchandise	10.4	11.5	11.8	11.7	11.4	- 8.8
Food Stores	7.2	7.2	6.8	6.4	6.3	14.3
Automotive Dealers and Service Stations	5.7	6.1	6.3	6.1	6.1	- 6.6
Apparel and Accessory Stores	3.5	3.6	3.4	3.1	3.3	6.1
Furniture and Home Furnishings Stores	2.8	2.8	2.7	2.4	2.2	27.3
Eating and Drinking Places	13.2	13.3	12.8	11.1	10.2	29.4
Miscellaneous Retail	6.7	6.6	6.4	5.7	5.5	21.8
Finance, Insurance and Real Estate	26.9	26.4	24.7	23.3	22.0	22.3
Banking	6.1	6.0	5.5	5.3	5.1	19.6
Credit Agencies other than Banks	2.5	2.5	2.3	2.1	1.9	31.6
Security, Commodity Brokers and Services	.8	.8	.7	.8	.7	14.3
Insurance Carriers, Agents, Brokers and Services	10.4	10.2	9.9	9.4	9.0	15.6
Real Estate and Other Finance and Insurance	7.1	6.9	6.3	5.7	5.3	34.0
Services	59.2	56.9	55.0	50.9	49.0	20.8
Hotels and Other Lodging Places	2.6	2.6	2.7	2.7	2.8	- 7.1
Personal Services	3.5	3.4	3.4	3.4	3.5	0
Business Services	14.1	13.6	13.4	11.9	10.1	39.6
Automobile Repair, Services and Garages	2.2	2.4	2.2	1.8	1.7	29.4
Miscellaneous Repair Services	.9	.9	.8	.8	.8	12.5
Motion Pictures, Amusement, and Recreation Services	2.5	2.7	3.0	2.8	3.0	- 16.7
Health Services	14.9	14.2	13.1	12.6	12.0	24.2
Legal Services	1.9	1.8	1.7	1.6	1.5	26.7
Educational Services	3.7	3.4	3.2	3.0	3.1	19.4
Social Services	3.7	3.7	3.2	2.8	2.5	48.0
Membership Organizations	4.6	4.7	4.6	4.4	4.9	- 6.1
Miscellaneous Services	2.6	2.6	2.5	2.1	2.2	18.2
Government	74.3	72.7	70.6	66.3	63.7	16.6
Federal Government	8.2	8.1	8.2	8.3	8.4	- 2.4
State and Local Government	66.1	64.6	62.4	58.0	55.3	19.5
Education	25.5	24.4	23.9	22.5	21.4	19.2
General	40.6	40.2	38.5	35.5	33.9	19.8

Estimates include all full-time and part-time wage and salary workers who worked during or received pay for the pay period including the twelfth of the month. Self-employed persons are excluded. Employment series have been adjusted to December 1978 benchmark levels. Industrial classification structure based on 1972 Standard Industrial Classification Manual.

The Richmond Standard Metropolitan Statistical Area covers the city of Richmond and the counties of Charles City, Chesterfield, Goochland, Hanover, Henrico, New Kent, and Powhatan.

1/ Not comparable with data for years prior to 1970. Charles City, Goochland, New Kent, and Powhatan counties included in the metropolitan area series beginning with data for January 1970.

2/ Includes primary metal industries, electric and electronic equipment, transportation equipment, instruments and related products, and miscellaneous manufacturing industries.

3/ Includes textile mill products, petroleum and coal products, rubber and miscellaneous plastics products, and leather and leather products.

THE MARKET BASKET

FOR

NORTHERN VIRGINIA METROPOLITAN AREA

NORFOLK—VIRGINIA BEACH—PORTSMOUTH SMSA

RICHMOND SMSA

The Market Basket for the Northern Virginia, Norfolk-Virginia Beach-Portsmouth and Richmond Metropolitan areas has been designed to measure the price change in the retail cost of a fixed quantity of foods. The cost of the Market Basket is derived by multiplying the average retail price of each item by the quantity and totaling the entire group. This permits a comparison of prices on a month-to-month basis. The Market Basket combines 40 of the 71 items priced during the same period of time each month at selected stores throughout the area. The Market Basket represents neither the cost of food for a family of one particular size or income group, nor every change in food prices, but only an increase in the total cost of items in the Market Basket.

The current Market Basket for the Richmond and Norfolk-Virginia Beach-Portsmouth Metropolitan areas may be compared with the series that began in July 1979. NOTE: Data for the Northern Virginia Metropolitan area was unavailable for 1980 and the Norfolk-Virginia Beach-Portsmouth Metropolitan area data is based on an eleven-month average.

1 lb.	Round Steak	1 bunch	Carrots	10 qts.	Milk
1 lb.	Bacon	1 stalk	Celery	1 pt.	Ice Cream
1 lb.	Hamburger	1 can	Tuna	2 doz.	Eggs
1 lb.	Frankfurters	1 can	Corn	½ lb.	American Processed Cheese
2 lbs.	Pork Chops	1 can	Peas		
2 lbs.	Chicken	1 can	Tomatoes	2 cans	Evaporated Milk
1 lb.	Frozen Fish	1 can	Peaches	1 lb.	Margarine
1 doz.	Oranges	1 can	Soup	1 lb.	Shortening
1 lb.	Apples	1 pkg.	Frozen Green Beans	1 lb.	Coffee
2 lbs.	Bananas	5 cans	Frozen Orange Juice	5 lbs.	Sugar
10 lbs.	Potatoes	4 lbs.	Flour	1 jar	Peanut Butter
2 lbs.	Cabbage	2 bxs.	Ready-To-Eat Cereal	1 (10 oz.)	Jar Jelly
1 head	Lettuce	1 bx.	Soda Crackers	1 ctn.	Soft Drinks
1 lb.	Onions	6 loaves	Bread		

The average cost of the Market Basket in 1980 increased 9.1 percent to $55.53 in the Richmond area and was up to 8.4 percent to $55.06 in the Norfolk area. The low for the year in both areas occurred in January at $51.02 for Norfolk and $51.40 for Richmond, while the apex was reached in December at $59.58 and $59.16 for the Richmond and Norfolk areas respectively.

This year, there was little of the usual seasonal price cycles as prices climbed steadily nearly every month, and the annual rate of increase accelerated.

RETAIL FOOD PRICE COMPARISON - JANUARY 1980 - DECEMBER 1980

COMMODITY AND UNIT		RICHMOND			NORFOLK - VIRGINIA BEACH - PORTSMOUTH			NORTHERN VIRGINIA		
		Jan. 1980	Dec. 1980	Change (Cents)	Jan. 1980	Dec. 1980	Change (Cents)	Jan. 1980	Dec. 1980	Change (Cents)
CEREAL AND BAKERY PRODUCTS										
Flour	5 lb.	107.0	105.4	- 1.6	102.2	105.3	3.1		129.5	
Cracker Meal	9 1/2 oz.	87.1	95.6	8.5	85.6	94.7	9.1	N	103.2	N
Corn Flakes	12 oz.	72.6	86.5	13.9	65.4	82.9	17.5		91.0	
Rolled Oats	18 oz.	77.9	90.8	12.9	76.2	88.8	12.6	O	90.4	O
Rice	lb.	46.6	51.8	5.2	48.0	56.3	8.3		52.9	
Bread, white	lb.	53.3	58.9	5.6	55.0	59.4	4.4	T	66.8	T
Vanilla Cookies	12 oz.	88.4	92.2	3.8	89.6	91.9	2.3		95.4	
Crackers, soda	lb.	83.6	91.6	8.0	87.6	94.3	6.7	A	89.8	A
MEATS, POULTRY AND FISH										
Beef and Veal:								V	360.5	V
Round Steak U. S. Choice	lb.	297.9	347.4	49.5	287.4	336.6	49.2		335.1	
Rib Roast U. S. Choice 5th cut	lb.	310.9	338.0	27.1	320.4	352.4	32.0	A	187.8	A
Chuck Roast U. S. Choice	lb.	173.3	185.3	12.0	180.4	184.9	4.5		170.0	
Hamburger	lb.	159.8	165.1	5.3	165.0	179.7	14.7	I	623.3	I
Veal Cutlets U. S. Choice	lb.	615.8	624.7	8.9	520.2	618.9	98.7			
Pork:								L	239.3	L
Chops, Center Cut	lb.	213.7	233.0	19.3	199.8	219.1	19.3		188.9	
Bacon, sliced	lb.	144.2	186.6	42.4	148.2	178.7	30.5	A	136.6	A
Ham, whole	lb.	134.7	142.0	7.3	159.9	164.4	4.5		139.6	
Sausage	lb.	125.1	142.5	17.4	122.2	135.2	13.0	B		B
Other Meats:									251.9	
Canned Ham	lb.	236.4	245.6	9.2	253.7	246.0	- 7.7	L	137.1	L
Bologna Sausage	1/2 lb.	109.8	122.5	12.7	102.4	114.3	11.9		193.3	
Frankfurters	lb.	170.0	183.8	13.8	167.8	188.7	20.9	E	73.9	E
Fryers, dressed and drawn	lb.	67.1	69.2	2.1	70.7	72.6	1.9			
Fish:									199.3	
Ocean Perch Fillet, frozen	lb.	193.5	205.3	11.8	211.2	210.9	- .3		262.3	
Haddock Fillet, frozen	lb.	233.1	262.9	29.8	231.9	274.8	42.9		116.2	
Tuna	6 1/2 oz. can	80.3	105.1	24.8	84.3	98.7	14.4		241.4	
Salmon	lb. can	217.8	235.8	18.0	209.0	230.6	21.6		96.3	
Sardines	3 3/4 oz.	74.3	87.7	13.4	71.8	88.4	16.6			
DAIRY PRODUCTS									228.3	
Butter	lb.	170.2	215.0	44.8	173.3	211.0	37.7		124.3	
Cheese, American process	1/2 lb.	99.1	120.6	21.5	97.2	116.5	19.3		1/	
Milk, fresh (delivered)	1/2 gal.	1/	1/	1/	1/	1/	1/		114.5	
Milk, fresh (grocery)	1/2 gal.	100.5	110.5	10.0	100.9	115.4	14.5		259.5	
Ice Cream	1/2 gal.	210.1	231.7	21.6	212.5	251.2	38.7		60.0	
Milk, evaporated	14 1/2 oz. can	44.7	51.8	7.1	43.5	52.5	9.0		106.2	
EGGS, fresh grade A large	doz.	96.4	101.6	5.2	96.2	105.7	9.5			
FRUITS AND VEGETABLES										
Frozen:									61.2	
Orange Juice, concentrate	6 oz.	58.6	58.2	- .4	55.1	54.7	- .4		39.4	
Lemonade, concentrate	6 oz.	25.0	32.7	7.7	28.1	35.8	7.7		58.2	
Peas	10 oz.	39.3	42.4	3.1	42.1	41.3	- .8		67.7	
Beans, green	9 oz.	45.6	51.9	6.3	49.9	52.9	3.0		69.8	
Broccoli	10 oz.	52.7	62.2	9.5	59.9	62.1	2.2		35.3	
Potatoes, French fried	9 oz.	34.3	36.2	1.9	30.7	33.3	2.6			
Fresh:									N/A	
Apples, winesap	lb.	45.7	49.2	3.5	48.8	42.7	- 6.1		38.8	
Bananas	lb.	32.8	35.7	2.9	31.7	33.9	2.2		116.1	
Oranges - size 200	doz.	109.2	123.4	14.2	126.1	129.9	3.8		82.2	
Beans, green	lb.	84.0	75.2	- 8.8	70.7	72.6	1.9		39.4	
Cabbage	lb.	21.9	36.8	14.9	20.9	35.3	14.4		49.2	
Carrots	1 lb. cello bag	35.2	47.9	12.7	33.0	44.3	11.3		82.0	
Celery	stalk	66.5	76.7	10.2	55.0	70.0	15.0		78.5	
Lettuce - size 48	head	51.0	73.1	22.1	50.2	63.1	12.9		30.2	
Onions	lb.	22.5	26.7	4.2	20.2	31.4	11.2		196.6	
Potatoes	10 lb.	106.6	214.9	108.3	109.5	201.8	92.3		41.5	
Sweet Potatoes	lb.	31.1	39.8	8.7	28.2	36.4	8.2		68.8	
Tomatoes	lb.	68.6	61.5	- 7.1	66.2	61.6	- 4.6			
Canned:									77.8	
Peaches	No. 2 1/2 can	88.9	99.0	10.1	86.6	94.9	8.3		75.2	
Fruit Cocktail	No. 303 can	64.5	75.0	10.5	63.3	73.0	9.7		50.6	
Corn	No. 303 can	44.4	47.9	3.5	42.8	47.0	4.2		51.5	
Tomatoes	No. 303 can	34.0	35.9	1.9	34.1	36.3	2.2		49.3	
Peas, fancy	No. 303 can	48.7	50.5	1.8	45.4	48.8	3.4		67.8	
Beets, sliced	No. 303 can	40.4	39.7	- .7	42.0	44.7	2.7		41.4	
Bean Soup	11 1/2 oz. can	36.2	39.1	2.9	36.2	38.8	2.6		31.0	
Tomato Soup	10 3/4 oz. can	26.6	30.0	5.4	26.4	26.8	.4		26.2	
Baby Foods, strained	4 3/4 oz.	19.7	23.8	4.1	19.9	23.8	3.9			
Dried:									49.8	
Navy Beans	lb.	41.9	49.0	7.1	43.3	48.9	5.6			
BEVERAGES									278.2	
Coffee	lb.	320.1	314.1	- 6.0	314.3	307.0	- 7.3		398.7	
Coffee, instant	6 oz.	318.7	332.3	13.6	324.0	331.3	7.3		159.0	
Tea	48 bags	132.9	145.0	12.1	128.8	142.0	13.2		264.0	
Cola Drink (8 bottles)	16 oz.	170.1	189.6	19.5	168.5	201.5	33.0			
FATS AND OILS									115.2	
Salad and Cooking Oil	pt.	98.9	113.8	14.9	92.1	110.8	18.7		281.9	
Shortening	3 lb.	215.0	241.4	26.4	207.6	234.3	26.7		101.9	
Salad Dressing	pt.	91.1	99.1	8.0	87.4	98.4	11.0		167.3	
Peanut Butter	16 oz.	127.2	145.4	18.2	122.8	143.4	20.6		85.8	
Margarine	lb.	65.0	78.5	13.5	65.1	75.1	10.0			
SUGAR AND SWEETS									316.3	
Sugar, granulated	5 lb.	138.0	302.9	164.9	135.8	313.4	177.6		88.8	
Grape Jelly	10 oz.	60.7	80.8	20.1	61.3	80.7	19.4			

1/ Delivered milk was discontinued July, 1979.

ANNUAL SURVEY OF VIRGINIA MANUFACTURES, 1979

Expansion of the State's economy continued in 1979, but at a considerably slackened pace as Virginia's growth rate was less than that of the nation for the second year in a row. Labor disputes, a general softness in demand, persistent inflation, as well as rising costs and a topping off of the recovery from the 1974-75 recession all worked to restrain economic growth.

Total manufacturing notched an employment gain of only 0.9 percent over 1978's performance. Gains of 1.2 percent by durable goods exceeded the 0.7 percent gain of nondurables in 1979, but the margin was smaller than the previous year. Among the major durable goods categories, total employment increased for instruments and related products, 5.7 percent; fabricated metal products, 5.6 percent; machinery, except electrical, 4.1 percent; stone, clay, and glass products, 3.9 percent; lumber and wood products, 3.8 percent; electric and electronic equipment, 3.4 percent; primary metal industries, 3.1 percent; and miscellaneous manufacturing industries were up 2.7 percent. Those industries exceeded the growth rates experienced at the durable goods and manufacturing levels. However, some industries took losses such as transportation equipment, down 6.2 percent, due in part to labor disruptions in shipbuilding and uncertain demand for autos. Furniture and fixtures dropped 1.4 percent from 1978 employment levels. Making better overall progress than in 1978, nondurable goods industries with a 0.7 percent growth rate still trailed both manufacturing in general and durable goods industries as a whole. Performance among the various component industries was quite divergent with gains, losses and stability. Printing and publishing made a strong showing with a 5.5 percent increment to employment along with food and kindred products, 3.3 percent; paper and allied products, 2.8 percent; chemicals and allied products, 1.5 percent; and tobacco manufactures, 1.2 percent. Putting the brakes on growth were employment losses in leather and leather products, 5.0 percent; apparel and other textile products, 4.7 percent; and a 0.2 percent drop in textile mill products. In addition, there was no change in the petroleum and coal products and rubber and miscellaneous plastics products' employment level.

Remunerations to workers were on the upswing in 1979 as the 413,100 manufacturing employees earned $5,520,034,000 in salaries and wages, up 10.7 percent over the $4,985,870,000 earned by 409,400 workers in 1978. An increase of $1,184 or 9.7 percent boosted the average salary-wage combination of a manufacturing worker to $13,362 for 1979. The 318,000 production workers earned $3,676,336,000, up 9.0 percent over the $3,371,998,000 paid to the same number of workers in 1978. A $995 increase pushed the average wage to $11,532, up 9.0 percent from last year. This year, the soft goods industries took the lead in the payroll derby with increases of 12.5 percent and 11.8 percent for combined salaries and wages, and wages respectively. All major nondurable industry groups' paychecks were up, notably printing and publishing, 19.8 percent; paper and allied products, 17.6 percent; food and kindred products, up 16.8 percent; chemicals and allied products, 13.4 percent; and tobacco manufactures up 13.2 percent; while the corresponding production worker pay was up 21.0, 22.1, 13.4, 13.2 and 10.2 percent respectively. Durable goods, on the other hand, did not fare as well in 1979, as gains in salaries and wages combined amounted to a modest 8.8 percent while production workers' wages were up 6.0 percent. However, some industries within durable goods recorded major gains: lumber and wood products, 18.6 percent; machinery except electrical, 17.1 percent; and fabricated metal products, 16.5 percent. These same industries experienced corresponding increases in production workers' wages — 18.5, 18.6, and 14.6 percent, respectively. Two classifications encountered setbacks in combined salaries and wages, namely instruments and related products, down 4.2 percent, and transportation equipment, off 0.1 percent. At the same time, wages in these industries saw respective drops of 4.3 and 5.4 percent.

Spending for new plant and equipment was impressive in 1979 as owners poured out $1,377,035,000, about 42.2 percent more than 1978's total of $968,277,000, into their businesses. This outlay was 5.2 percent greater than the $1,308,532,000 that had been anticipated during 1978. Nondurables again set the pace with a 47.1 percent increase in overall capital expenditures compared to durable's 30.4 percent and all manufacturing's 42.2 percent. Expenditures by industrial classification showed the leader

to be food and kindred products with a whopping 334.4 percent increase due to heavy investment in the beverage industry. Additional nondurable gains were made by printing and publishing, up 41.9 percent; petroleum and coal products and rubber and miscellaneous plastics products, 40.5 percent; apparel and other textile products, 28.8 percent; and chemicals and allied products, up 19.9 percent. The major dropoffs were leather and leather products, down 55.1 percent; tobacco manufactures, 17.2 percent; and textile mill products, down 2.2 percent. The hard goods sector, though trailing as a whole, still had some outstanding individual gains. Among those were miscellaneous manufacturing, up 119.0 percent; primary metal industries, 111.2 percent; transportation equipment, despite its problems, up 104.7 percent; furniture and fixtures, 23.8 percent; electric and electronic equipment, 23.0 percent; and lumber and wood products, up 20.4 percent. Two reductions in outlays, compared to 1978, occurred as instruments and related products pared spending by 55.2 percent, and stone, clay, and glass products spent 14.9 percent less.

Carried by the strength of nondurable goods industries, the State registered $14,324,344,000 in value added by manufactures for 1979, up 13.3 percent from the $12,646,347,000 reported for 1978. Recording a 22.5 percent gain in value added, nondurables provided the greater portion of the increase with such industries as food and kindred products, up 36.6 percent; tobacco manufactures, 34.5 percent; chemicals and allied products, 27.6 percent; printing and publishing, 23.9 percent; and paper and allied products 19.4 percent. Due to falloffs in several industries, the overall durable section posted only a 1.5 percent increase in value added. Some good gains, however, were turned in as fabricated metal products rose 36.4 percent; lumber and wood products, 20.8 percent; machinery, except electrical, 18.8 percent; stone, clay, and glass products, 18.6 percent; and electric and electronic equipment increased 15.7 percent. Retarding durables' growth rate were setbacks in transportation equipment, off 30.9 percent; instruments and related products, 22.9 percent; furniture and fixtures, 3.7 percent; and miscellaneous manufacturing industries, down 1.2 percent.

Upon reflection, the manufacturing sector exhibited mixed results over the year and presents a blend of both positives and negatives for the years in the eighties. The announcement by the Virginia Division of Industrial Development of new or expansions to existing manufacturing firms (117) for 1979, with anticipated employment of 9,205 was a positive indicator. The year's announcements exceed 1978's by 14 with a slight employment increase. These new plant announcements give reassurance of the Commonwealth's attractiveness to a wide-based business community. A negative note and cause for concern was that manufacturing's annual growth for the past two years has been below the national rate.

In response to reduced business and an uncertain tomorrow, businessmen are hedging on future expansion plans as total anticipated capital expenditures were reduced by 2.6 percent. Durable goods manufacturers planned a 7.8 percent overall reduction in anticipated capital expenditures, yet some categories intended to continue future growth. Among those planning to expand were lumber and wood products, up 38.7 percent; machinery, except electrical, 24.0 percent; and transportation equipment, up 13.4 percent. Reductions were numerous and were led by miscellaneous manufacturing industries, down 62.4 percent; fabricated metal products, 54.4 percent; stone, clay, and glass products, 40.2 percent; instruments and related products, 7.6 percent; and primary metal industries, down 7.0 percent. Nondurables also prepared for cutbacks, but only a mere 0.3 percent reduction. Those with major spending plans included paper and allied products, up 77.2 percent; textile mill products, 48.6 percent; chemicals and allied products, 43.5 percent; and tobacco manufactures with a 36.9 percent increase for anticipated capital expenditures. Less optimistic were apparel and other textile products, down 45.2 percent; food and kindred products, 38.2 percent; petroleum and coal products and rubber and miscellaneous plastics products, 31.3 percent; printing and publishing, 30.8 percent; and leather and leather products, down 23.4 percent.

Though Virginia's manufacturing sector slowed its pace of growth, the potential for revival remained as numerous industries continued to prosper. The prevailing mood seemed to be one of caution as business adjusted itself to the changing economic climate.

Christopher E. Loftus

ANNUAL SURVEY OF VIRGINIA MANUFACTURES

1979 (PRELIMINARY)

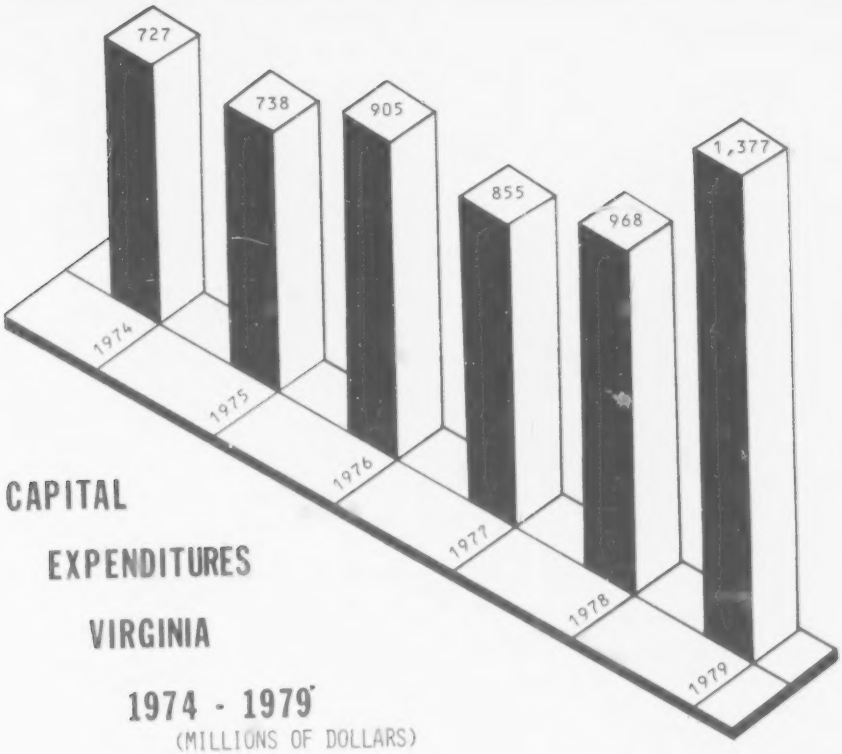
(EMPLOYMENT AND DOLLARS ARE IN THOUSANDS)

Industry Group 1/	All Employees		Production Workers		Value Added by Manufactures 3/	Capital Expenditures 3/	Anticipated Capital Expenditures 3/
	Number (average for year) 2/	Salaries and Wages (total) 3/	Number (average for year) 2/	Wages (total) 3/			
ALL MANUFACTURING	413.1	$5,520,034	318.8	$3,676,336	$14,324,344	$1,377,035	$1,275,118
Durable Goods	190.1	2,618,692	144.5	1,699,932	5,665,075	371,614	364,469
Lumber and Wood Products	24.9	257,393	21.2	190,854	642,133	59,872	45,292
Logging Camps and Logging Contractors--							
Sawmills and Planing Mills	10.7	96,238	9.5	77,173	257,930	24,011	17,134
Millwork, Plywood and Structural Members	6.6	81,252	5.5	60,224	198,423	22,434	19,174
Wood Containers	1.9	17,096	1.8	13,655	39,044	3,163	1,472
Wood Buildings and Mobile Homes	3.5	38,235	2.5	20,690	83,087	2,569	1,119
Miscellaneous Wood Products	2.2	24,572	1.9	19,112	63,649	7,695	6,393
Furniture and Fixtures	27.4	251,188	22.9	185,220	474,721	17,712	22,468
Household Furniture and Office Furniture	25.9	236,158	21.9	176,671	450,988	17,386	22,256
Stone, Clay, and Glass Products	13.4	165,162	10.9	118,936	412,559	30,761	27,120
Concrete, Gypsum, and Plaster Products	7.6	96,168	6.2	69,205	241,476	23,401	15,420
Glass and Glass Products	1.6	24,176	1.3	17,096	62,188	2,094	9,667
Primary Metal Industries	13.4	219,373	7.8	121,781	269,468	43,043	32,565
Fabricated Metal Products	20.8	315,765	13.8	176,141	629,558	33,613	32,095
Fabricated Structural Metal Products	13.1	199,622	7.8	89,941	312,425	14,028	9,723
Machinery, Except Electrical	15.1	222,978	10.6	136,123	503,749	35,232	44,201
Construction and Related Machinery	4.7	69,003	3.0	39,982	179,769	11,140	8,473
Special Industry Machinery	2.5	40,633	1.6	23,137	62,886	2,516	4,724
Office and Computing Machines	.3	5,471	.1	1,677	8,992	1,020	296
Refrigeration and Service Machinery	2.1	30,816	1.4	17,192	68,279	2,125	2,264
Miscellaneous Machinery, Except Electrical	2.4	35,544	2.2	28,145	79,397	3,991	3,467
Electric and Electronic Equipment	33.1	526,556	22.6	266,282	1,514,143	62,894	68,538
Electrical Industrial Apparatus	7.6	118,500	5.1	58,831	244,391	10,246	8,250
Communication Equipment	11.3	170,349	7.2	91,000	544,693	27,764	32,732
Electronic Components and Accessories	5.3	116,494	3.4	33,445	236,342	9,775	11,728
Transportation Equipment	34.5	572,396	29.5	455,237	1,061,048	79,650	85,457
Instruments and Related Products	3.7	47,083	2.2	22,156	75,948	3,009	3,380
Miscellaneous Manufacturing Industries	3.8	40,799	3.0	27,202	81,748	5,828	3,353
Nondurable Goods	223.0	2,901,342	174.3	1,976,404	8,659,269	1,005,421	910,649
Food and Kindred Products	41.0	484,233	30.0	293,004	1,667,331	411,560	191,320
Meat Products	12.7	140,642	11.0	111,966	496,589	41,937	26,767
Dairy Products	2.5	36,459	1.2	15,436	97,174	6,174	3,016
Preserved Fruits and Vegetables	4.4	41,640	3.7	31,830	121,494	5,576	5,652
Grain Mill Products	.9	12,608	.7	6,895	43,346	6,322	2,614
Bakery Products	5.0	70,149	2.5	34,947	306,854	5,377	6,144
Beverages	5.5	97,025	2.1	37,273	373,584	334,897	127,146
Miscellaneous Foods and Kindred Products	7.4	56,380	6.5	40,081	145,508	7,070	6,540
Tobacco Manufactures	16.2	286,803	11.9	189,920	1,155,857	117,735	197,548
Tobacco Stemming and Redrying	2.2	28,683	1.6	17,025	63,150	12,364	13,035
Textile Mill Products	44.6	474,486	40.0	393,012	999,508	75,182	50,495
Broad Woven Fabric Mills	18.6	217,470	16.4	182,182	496,924	34,144	25,725
Knitting Mills	12.8	115,583	11.7	94,576	214,358	10,046	18,538
Textile Finishing, Except Wool	5.3	61,421	4.9	50,161	93,610	15,947	2,470
Yarn and Thread Mills	3.3	30,775	3.0	26,073	48,986	1,799	3,000
Miscellaneous Textile Goods	1.4	15,033	1.2	12,149	50,474	1,402	762
Apparel and Other Textile Products	34.7	257,903	31.5	221,814	568,866	9,518	4,902
Men's and Boys' Clothing	13.3	104,873	12.1	92,137	181,024	6,653	3,241
Women's and Misses' Outerwear	10.6	77,008	9.8	69,073	231,121	713	492
Women's and Children's Undergarments	2.2	14,666	2.0	12,452	29,412	268	179
Children's Outerwear	4.7	32,330	4.4	26,482	67,485	214	240
Miscellaneous Fabricated Textile Products	1.7	15,704	1.4	10,118	27,242	1,408	321
Paper and Allied Products	14.5	249,886	11.0	172,168	801,416	68,823	113,273
Paper and Paperboard, Except Building Paper	7.5	152,061	5.4	100,137	603,889	56,426	98,968
Miscellaneous Converted Paper Products	2.8	35,430	2.3	26,947	86,678	5,384	4,850
Paperboard Containers and Boxes	3.5	52,492	2.8	39,205	93,675	5,714	8,795
Printing and Publishing	21.0	288,631	12.7	163,514	685,015	84,375	54,965
Newspapers and Periodicals	8.0	98,650	2.9	32,446	227,977	38,374	13,367
Commercial Printing	8.0	125,622	6.2	89,863	266,737	40,523	32,942
Chemicals and Allied Products	34.4	636,392	23.8	380,546	2,161,811	186,270	211,855
Industrial Inorganic Chemicals	.8	17,100	.5	7,332	43,483	4,288	5,664
Plastics Materials and Synthetics	21.2	398,269	15.6	260,404	1,011,186	107,841	117,722
Drugs	2.6	55,298	1.2	18,124	389,043	20,074	39,035
Agricultural Chemicals	1.7	22,215	1.1	9,793	39,302	4,166	1,790
Miscellaneous Chemical Products	3.1	54,744	2.1	28,730	305,280	14,611	9,093
Petroleum and Coal Products--Rubber and							
Miscellaneous Plastics Products	12.8	197,146	9.9	140,328	563,438	51,333	85,380
Miscellaneous Plastics Products	5.9	82,741	4.4	56,697	292,364	31,654	43,309
Tires and Fabricated Rubber Products	6.6	105,361	5.3	77,783	291,001	9,817	27,484
Leather and Leather Products	3.8	25,962	3.5	22,098	56,027	625	911

1/ Based on the 1972 edition of the Standard Industrial Classification Manual.

2/ Annual averages prepared by the Virginia Department of Labor and Industry in cooperation with the U. S. Bureau of Labor Statistics.

3/ Projected on the basis of survey employment to estimated annual average.



CAPITAL EXPENDITURES VIRGINIA

1974 - 1979*

(MILLIONS OF DOLLARS)

ANNUAL SURVEY OF MANUFACTURES

BRISTOL STANDARD METROPOLITAN STATISTICAL AREA

1979 (PRELIMINARY)

(EMPLOYMENT AND DOLLARS ARE IN THOUSANDS)

Industry Group 1/	All Employees		Production Workers		Value Added by Manufactures 3/	Capital Expenditures 3/	Anticipated Capital Expenditures 3/
	Number (average for year) 2/	Salaries and Wages (total) 3/	Number (average for year) 2/	Wages (total) 3/			
ALL MANUFACTURING	9.8	$120,444	7.4	$79,392	$350,734	$17,417	$12,916
Durable Goods	5.3	74,418	4.2	51,380	248,060	13,177	9,462
Lumber and Wood Products-- Furniture and Fixtures	.5	3,933	.4	3,305	7,026	654	485
Primary Metal Industries-- Fabricated Metal Product	2.3	36,614	1.8	26,427	100,777	5,027	5,052
Other Durable Goods 4/	2.5	33,871	1.8	21,648	140,257	7,496	3,925
Nondurable Goods	4.5	46,026	3.2	28,012	102,674	4,240	3,454
Food and Kindred Products	1.7	21,910	.8	9,615	46,693	3,160	2,193
Apparel and Other Textile Products	1.7	12,260	1.5	10,554	12,897	106	60
Other Nondurable Goods 5/	1.1	11,856	.8	7,843	43,084	974	1,201

1/ Based on the 1972 edition of the Standard Industrial Classification Manual.

2/ Annual averages prepared by the Virginia Department of Labor and Industry in cooperation with the U. S. Bureau of Labor Statistics.

3/ Projected on the basis of survey employment to estimated annual average.

4/ Includes stone, clay, and glass products; machinery, except electrical; electric and electronic equipment; and transportation equipment.

5/ Includes tobacco manufactures; textile mill products; paper and allied products; printing and publishing; chemicals and allied products; and rubber and miscellaneous plastics products.

The Bristol Standard Metropolitan Statistical Area is comprised of the City of Bristol and the counties of Scott and Washington.

ANNUAL SURVEY OF MANUFACTURES

LYNCHBURG STANDARD METROPOLITAN STATISTICAL AREA

1979 (PRELIMINARY)

(EMPLOYMENT AND DOLLARS ARE IN THOUSANDS)

Industry Group 1/	All Employees		Production Workers		Value Added by Manufactures 3/	Capital Expenditures 3/	Anticipated Capital Expenditures 3/
	Number (average for year) 2/	Salaries and Wages (total) 3/	Number (average for year) 2/	Wages (total) 3/			
ALL MANUFACTURING	29.6	$402,387	21.2	$235,985	$812,793	$66,081	$42,115
Durable Goods	19.5	285,091	13.2	151,719	555,234	38,190	30,818
Lumber and Wood Products							
Furniture and Fixtures	4.3	39,110	3.6	27,874	86,308	4,908	7,522
Other Durable Goods 4/	15.2	245,981	9.6	123,845	468,926	33,282	23,296
Nondurable Goods	10.1	117,296	8.0	84,266	257,559	27,891	11,297
Food and Kindred Products	1.3	15,217	.7	6,904	31,885	2,515	1,227
Textile Mill Products	1.8	21,962	1.5	18,108	48,612	3,735	–
Apparel and Other Textile Products	2.4	16,829	2.2	13,894	18,768	–	7
Paper and Allied Products	.9	17,900	.8	14,708	42,250	1,960	1,806
Other Nondurable Goods 5/	3.7	45,388	2.8	30,652	116,044	19,691	8,257

1/ Based on the 1972 edition of the Standard Industrial Classification Manual.

2/ Annual averages prepared by the Virginia Department of Labor and Industry in cooperation with the U. S. Bureau of Labor Statistics.

3/ Projected on the basis of survey employment to estimated annual average.

4/ Includes stone, clay, and glass products; primary metal industries; fabricated metal products; machinery, except electrical; electric and electronic equipment; transportation equipment; instruments and related products; and miscellaneous manufacturing industries.

5/ Includes tobacco manufactures; printing and publishing; chemicals and allied products; petroleum and coal products; rubber and miscellaneous plastics products; and leather and leather products.

The Lynchburg Standard Metropolitan Statistical Area is comprised of the city of Lynchburg and the counties of Amherst, Campbell, and Appomattox.

ANNUAL SURVEY OF MANUFACTURES

NORFOLK-VIRGINIA BEACH-PORTSMOUTH STANDARD METROPOLITAN STATISTICAL AREA

1979 (PRELIMINARY)

(EMPLOYMENT AND DOLLARS ARE IN THOUSANDS)

Industry Group 1/	All Employees		Production Workers		Value Added by Manufactures 3/	Capital Expenditures 3/	Anticipated Capital Expenditures 3/
	Number (average for year) 2/	Salaries and Wages (total) 3/	Number (average for year) 2/	Wages (total) 3/			
ALL MANUFACTURING	30.1	$420,245	23.4	$285,487	$1,192,611	$108,812	$57,557
Durable Goods	17.7	279,501	14.8	206,406	799,282	62,230	36,887
Lumber and Wood Products	1.8	23,534	1.7	20,047	75,414	6,837	6,469
Stone, Clay, and Glass Products	1.9	22,770	1.4	15,546	70,127	4,108	2,307
Fabricated Metal Products	1.0	13,330	.6	6,728	22,243	684	529
Machinery, except Electrical	1.0	13,752	.9	8,887	25,484	6,382	10,060
Transportation Equipment	7.5	144,850	6.6	113,686	450,236	38,711	6,186
Other Durable Goods 4/	4.5	61,265	3.6	41,512	155,778	5,508	11,336
Nondurable Goods	12.4	140,744	8.6	79,081	393,329	46,582	20,670
Food and Kindred Products	6.0	59,233	4.2	35,420	164,296	8,140	5,486
Apparel and Other Textile Products	1.0	7,190	.8	5,951	23,381	347	408
Printing and Publishing	2.2	31,266	1.2	14,804	65,468	22,567	7,348
Chemicals and Allied Products	1.6	25,172	1.1	11,345	47,384	3,040	1,102
Other Nondurable Goods 5/	1.6	17,883	1.2	11,561	92,801	12,488	6,326

1/ Based on the 1972 edition of the Standard Industrial Classification Manual.

2/ Annual averages prepared by the Virginia Department of Labor and Industry in cooperation with the U. S. Bureau of Labor Statistics.

3/ Projected on the basis of survey employment to estimated annual average.

4/ Includes furniture and fixtures; primary metal industries; electric and electronic equipment; instruments and related products; and miscellaneous manufacturing industries.

5/ Includes tobacco manufactures; textile mill products; paper and allied products; petroleum and coal products; rubber and miscellaneous plastics products; and leather and leather products.

The Norfolk-Virginia Beach-Portsmouth Standard Metropolitan Statistical Area is comprised of the cities of Norfolk, Portsmouth, Virginia Beach, Chesapeake, and Suffolk.

ANNUAL SURVEY OF MANUFACTURES

NORTHERN VIRGINIA METROPOLITAN AREA

1979 (PRELIMINARY)

(EMPLOYMENT AND DOLLARS ARE IN THOUSANDS)

Industry Group 1/	All Employees		Production Workers		Value Added by Manufactures 3/	Capital Expenditures 3/	Anticipated Capital Expenditures 3/
	Number (average for year) 2/	Salaries and Wages (total) 3/	Number (average for year) 2/	Wages (total) 3/			
ALL MANUFACTURING	16.5	$278,475	9.0	$109,276	$577,079	$38,589	$31,802
Durable Goods	10.0	179,296	5.5	62,419	350,164	13,201	18,388
Stones, Clay, and Glass Products	1.1	13,177	.9	7,485	25,301	1,874	1,856
Fabricated Metal Products	1.2	16,859	.9	10,845	39,785	1,287	738
Machinery, except Electrical	.7	10,068	.5	6,622	20,154	1,222	525
Electric and Electronic Equipment	5.0	107,575	2.2	25,257	206,340	6,786	12,974
Other Durable Goods 4/	2.0	31,617	1.0	12,210	58,584	2,032	2,295
Nondurable Goods	6.5	99,179	3.5	46,857	226,915	25,388	13,414
Food and Kindred Products	1.1	20,837	.4	7,434	72,591	3,030	2,493
Printing and Publishing	4.3	61,138	2.6	33,991	103,794	19,822	6,979
Other Nondurable Goods 5/	1.1	17,204	.5	5,432	50,530	2,536	3,942

1/ Based on the 1972 edition of the Standard Industrial Classification Manual.

2/ Annual averages prepared by the Virginia Department of Labor and Industry in cooperation with the U. S. Bureau of Labor Statistics.

3/ Projected on the basis of survey employment to estimated annual average.

4/ Includes lumber and wood products; furniture and fixtures; primary metal industries; transportation equipment; instruments and related products; and miscellaneous manufacturing industries.

5/ Includes apparel and other textile products; paper and allied products; chemicals and allied products; petroleum and coal products; and rubber and miscellaneous plastics products.

The Northern Virginia Metropolitan Area covers the cities of Alexandria, Fairfax, Falls Church, Manassas, and Manassas Park and the counties of Arlington, Fairfax, Loudoun, and Prince William.

ANNUAL SURVEY OF MANUFACTURES

PETERSBURG-COLONIAL HEIGHTS-HOPEWELL STANDARD METROPOLITAN STATISTICAL AREA

1979 (PRELIMINARY)

(EMPLOYMENT AND DOLLARS ARE IN THOUSANDS)

Industry Group 1/	All Employees		Production Workers		Value Added by Manufactures 3/	Capital Expenditures 3/	Anticipated Capital Expenditures 3/
	Number (average for year) 2/	Salaries and Wages (total) 3/	Number (average for year) 2/	Wages (total) 3/			
ALL MANUFACTURING	12.2	$190,056	9.8	$141,329	$707,376	$46,716	$52,826
Durable Goods	2.7	29,858	2.2	20,530	59,856	7,698	9,927
Lumber and Wood Products--Furniture and Fixtures	.6	6,864	.4	4,734	16,118	3,240	966
Stone, Clay, and Glass Products	.2	2,869	.2	2,214	6,996	119	153
Fabricated Metal Products	.2	2,605	.2	1,569	4,516	199	6
Other Durable Goods 4/	1.7	17,520	1.4	12,013	32,226	4,140	8,802
Nondurable Goods	9.5	160,198	7.6	120,799	647,520	39,018	42,899
Food and Kindred Products	.4	5,064	.2	2,096	13,744	2,344	757
Chemicals and Allied Products	3	74,764	2.9	53,794	284,858	33,425	37,676
Other Nondurable Goods 5/	5.	80,370	4.5	64,909	348,918	3,249	4,466

1/ Based on the 1972 edition of the Standard Industrial Classification Manual.

2/ Annual averages prepared by the Virginia Department of Labor and Industry in cooperation with the U. S. Bureau of Labor Statistics.

3/ Projected on the basis of survey employment to estimated annual average.

4/ Includes machinery, except electrical; electric and electronic equipment; transportation equipment; instruments and related products; and miscellaneous manufacturing industries.

5/ Includes tobacco manufactures; textile mill products; apparel and other textile products; paper and allied products; printing and publishing; rubber and miscellaneous plastics products; and leather and leather products.

The Petersburg-Colonial Heights-Hopewell Standard Metropolitan Statistical Area is comprised of the cities of Petersburg, Colonial Heights, and Hopewell and the counties of Dinwiddie and Prince George.

ESTIMATED NUMBER OF PRODUCTION WORKERS AND HOURS AND GROSS EARNINGS OF THESE WORKERS IN SELECTED MANUFACTURING INDUSTRIES
RICHMOND STANDARD METROPOLITAN STATISTICAL AREA
ANNUAL AVERAGES 1979 & 1980

INDUSTRY GROUP	PRODUCTION WORKERS		AVERAGE WEEKLY EARNINGS		AVERAGE WEEKLY HOURS		AVERAGE HOURLY EARNINGS	
	1980	1979	1980	1979	1980	1979	1980	1979
MANUFACTURING	37.3	37.4	$318.40	$275.60	40.0	40.0	$7.96	$6.89
Durable Goods	10.9	11.1	301.92	275.06	40.8	41.3	7.40	6.66
Lumber and Wood Products	1.1	1.3	185.20	178.09	40.0	40.2	4.63	4.43
Furniture and Fixtures	1.8	1.9	180.97	175.96	39.6	39.9	4.57	4.41
Primary Metal Industries	1.4	1.5	478.61	408.07	41.8	42.2	11.45	9.67
Fabricated Metal Products	1.8	1.9	371.13	336.19	41.1	41.2	9.03	8.16
Fabricated Structural Metal Products	1.3	1.4	412.62	368.72	41.2	41.9	10.02	8.80
Nondurable Goods	26.4	26.3	323.95	275.41	39.7	39.4	8.16	6.99
Food and Kindred Products	2.9	2.9	225.59 1/	222.05	38.3	37.7	5.89 1/	5.89
Tobacco Manufactures	8.4	8.2	393.57	289.54	39.2	37.7	10.04	7.68
Cigarettes	7.8	7.5	400.86	295.22	39.3	37.8	10.20	7.81
Apparel and Other Textile Products	2.0	2.1	162.64	152.48	38.0	38.7	4.28	3.94
Paper and Allied Products	3.5	3.5	290.21	258.44	41.4	40.7	7.01	6.35
Printing and Publishing	3.5	3.4	316.91	302.51	38.6	39.7	8.21	7.62
Chemicals and Allied Products	4.8	5.0	356.18	320.61	40.8	41.8	8.73	7.67

The Richmond Standard Metropolitan Statistical Area covers the city of Richmond and the counties of Charles City, Chesterfield, Goochland, Hanover, Henrico, New Kent, and Powhatan.

Average earnings are computed on a gross basis, reflecting not only changes in basic hourly and incentive wage rates, but also such variable factors as premium pay for overtime, late shift work, etc. Average weekly hours are the number of hours worked or paid for and are affected by such factors as absenteeism, turnover, overtime, etc.

1/ Not comparable with data for prior years.

ANNUAL SURVEY OF MANUFACTURES
RICHMOND STANDARD METROPOLITAN STATISTICAL AREA
1979 (PRELIMINARY)
(EMPLOYMENT AND DOLLARS ARE IN THOUSANDS)

Industry Group 1/	All Employees		Production Workers		Value Added by Manufactures 3/	Capital Expenditures 3/	Anticipated Capital Expenditures 3/
	Number (average for year) 2/	Salaries and Wages (total) 3/	Number (average for year) 2/	Wages (total) 3/			
ALL MANUFACTURING	55.4	$924,043	37.4	$554,501	$2,462,335	$235,568	$387,063
Durable Goods	17.9	296,981	11.1	155,379	426,877	38,811	32,225
Lumber and Wood Products	1.6	19,439	1.3	13,076	39,643	5,223	2,276
Furniture and Fixtures	2.3	23,293	1.9	16,722	43,795	2,152	1,557
Stone, Clay, and Glass Products	1.3	17,916	.8	9,691	25,213	3,610	2,021
Fabricated Metal Products	2.5	39,663	1.9	26,560	34,392	2,064	2,966
Machinery, except Electrical	2.0	35,008	1.2	18,870	57,971	2,519	5,713
Other Durable Goods 4/	8.2	161,662	4.0	70,460	225,862	23,243	17,692
Nondurable Goods	37.5	627,062	26.3	399,122	2,035,458	196,757	354,838
Food and Kindred Products	4.4	60,604	2.9	40,006	305,854	9,720	35,076
Tobacco Manufactures	11.8	218,451	8.2	136,830	836,819	109,995	190,755
Apparel and Other Textile Products	2.5	23,384	2.1	15,297	43,632	845	441
Paper and Allied Products	4.1	61,813	3.5	50,559	311,365	8,254	10,570
Printing and Publishing	5.1	78,846	3.4	49,553	139,240	8,741	12,850
Chemicals and Allied Products	7.7	158,858	5.0	88,940	453,994	49,897	81,101
Other Nondurable Goods 5/	1.9	25,106	1.2	17,937	84,554	9,305	24,045

1/ Based on the 1972 edition of the Standard Industrial Classification Manual.

2/ Annual averages prepared by the Virginia Department of Labor and Industry in cooperation with the U. S. Bureau of Labor Statistics.

3/ Projected on the basis of survey employment to estimated annual average.

4/ Includes primary metal industries; electric and electronic equipment; transportation equipment; instruments and related products; and miscellaneous manufacturing industries.

5/ Includes textile mill products; petroleum and coal products; rubber and miscellaneous plastics products; and leather and leather products.

The Richmond Standard Metropolitan Statistical Area is comprised of the city of Richmond and the counties of Henrico, Chesterfield, Hanover, Charles City, Goochland, and Powhatan.

ANNUAL SURVEY OF MANUFACTURES
ROANOKE STANDARD METROPOLITAN STATISTICAL AREA
1979 (PRELIMINARY)
(EMPLOYMENT AND DOLLARS ARE IN THOUSANDS)

Industry Group 1/	All Employees		Production Workers		Value Added by Manufactures 3/	Capital Expenditures 3/	Anticipated Capital Expenditures 3/
	Number (average for year) 2/	Salaries and Wages (total) 3/	Number (average for year) 2/	Wages (total) 3/			
ALL MANUFACTURING	20.9	$282,293	14.4	$164,302	$608,750	$37,708	$28,043
Durable Goods	11.9	171,639	8.2	96,921	318,126	20,576	12,516
Primary Metal Industries							
Fabricated Metal Products	2.5	35,285	1.9	24,793	43,175	3,801	2,565
Machinery, except Electrical	1.7	25,939	1.2	16,609	55,396	6,924	3,679
Other Durable Goods 4/	7.7	110,415	5.1	55,519	219,555	9,851	57,602
Nondurable Goods	9.0	110,654	6.2	67,381	290,624	17,132	15,527
Food and Kindred Products	2.0	24,248	.9	8,800	61,911	6,263	7,863
Apparel and Other Textile Products	1.8	12,272	1.5	10,184	16,709	157	118
Printing and Publishing	.9	10,918	.4	4,458	22,640	1,102	860
Other Nondurable Goods 5/	4.3	63,216	3.4	43,939	189,364	9,610	6,686

1/ Based on the 1972 edition of the Standard Industrial Classification Manual.

2/ Annual averages prepared by the Virginia Department of Labor and Industry in cooperation with the U. S. Bureau of Labor Statistics.

3/ Projected on the basis of survey employment to estimated annual average.

4/ Includes lumber and wood products; furniture and fixtures; stone, clay, and glass products; electric and electronic equipment; transportation equipment; instruments and related products; and miscellaneous manufacturing industries.

5/ Includes textile mill products; paper and allied products; chemicals and allied products; and rubber and miscellaneous plastics products.

The Roanoke Standard Metropolitan Statistical Area is comprised of the cities of Roanoke and Salem and the counties of Roanoke, Botetourt, and Craig.

EXPLANATION OF TERMS

The survey of manufactures, which is conducted annually for Virginia and its metropolitan areas, is designed to present such important economic indicators as employment, salaries, wages, value added by manufactures, and capital expenditures. Because much of these data are unavailable until well after the end of the calendar year and must then be collected and edited by the Department before tabulation and publication, this study cannot be used as an instantaneous year-end review. The additional time, however, permits the construction of a more accurate representation of the economy during the survey year than would otherwise be possible. In order to provide statistics by industry group, in addition to the State and SMSA totals, each manufacturing firm has been assigned an industry code based on the Standard Industrial Classification Manual. Publication of statistics for industry groups in which the employment is dominated by a single firm might indirectly reveal confidential data for that firm; these industry groups have been combined with other industry groups before publication.

Totals for industry groups with less than 100 percent response are estimated on the basis of an employment factor. Since responding companies accounted for 67.5 percent of Virginia's estimated total manufacturing employment in 1979, published figures should closely approximate data that would result from a complete canvass. Statistical data have been obtained from approximately 1,800 manufacturing plants including most of the large plants and a representative sample of the many smaller plants.

"Value Added by Manufactures" approximates the value created in the manufacturing process and is obtained by subtracting from the net selling value of products manufactured the cost of contract work and cost of materials, which includes components, supplies, containers for products, fuel and electrical energy consumed during the year.

The term "All Employees" includes all classes of employees (administrative, supervisory, clerical, professional, technical, sales, delivery, installation, construction and service personnel, as well as operating and related workers) employed full or part-time by the establishment. "Wages and Salaries" are defined as gross earnings of employees, including commissions, dismissal pay, nonproduction bonuses, vacation and sick leave pay, and compensation of any kind, prior to such deductions as employees' social security contributions, withholding taxes, union dues, group insurance and saving bonds.

"Production Workers" is restricted to include working foremen and all nonsupervisory workers engaged in production work or other services closely allied to production operations.

"Capital Expenditures" includes expenditures for construction, new machinery and new equipment (includes major alterations and capitalized repairs but excludes expenditures for land). Also included are expenditures chargeable to fixed assets accounts for which depreciation accounts are maintained and excludes used plant and equipment acquired from others. This information is available for the past calendar year. Anticipated capital expenditures for the current year is also published.

DIVISION OF

MINES AND QUARRIES

The Division of Mines and Quarries functions within the Department of Labor and Industry and is mandated through Title 45.1, The Virginia Mining Laws, to supervise the execution and enforcement of all laws enacted for the safety of persons employed within or at mines or quarries, and oil and gas production activities within the limits of the Commonwealth, and the protection of mine property and other property used in connection therewith. In the conduct of this mandate, the Division of Mines and Quarries has developed a coal mine health and safety enforcement program, metal and nonmetallic mine health and safety enforcement program, oil and gas inspection program and a miner education and training program. These programs focus on the goals and objectives of the Division, which include the enforcement of reasonable health and safety standards, the provision of education and training for mine personnel and the protection of mine property and property affected by mining.

The Division maintains a main office facility in Wise County at 219 Wood Avenue, Big Stone Gap, Virginia. This facility is a State-owned structure and is the seat of all Division administrative functioning with facilities also provided for training and examining activities. In addition, a field office and training center is rented in Buchanan County near Vansant. These facilities are located central to the concentrated coal mining activities of the seven county Southwest Virginia coal field. The Division currently employs a staff of 41 field and 6 office personnel, headed by the Chief Mine Inspector who reports to the Commissioner of Labor and Industry. All facilities and programs within the Division stress individual miner safety through coordination of efforts for education, engineering and enforcement of mining safety principles and standards. All Division field inspection personnel are qualified, experienced mining personnel who have demonstrated and possess required certification of mining skills and knowledge.

Six office support personnel work within the Division and maintain required records of all mining and oil and gas drilling conducted throughout the State. Annual licenses, mining and drilling maps, reporting of production and employment figures, accident reports and other information is required to be submitted to the Division and must be compiled. During 1980 a total of 1,579 mining licenses were issued. Mining maps were submitted and catalogued for each active underground operation during December and June. A review of mining and quarrying safety within the Commonwealth was compiled and published quarterly during 1980, and mailed to all mining operations and other interested persons and activities. The Division also provided statistical data relevant to Virginia's mining industry to other State agencies, Federal agencies and various private concerns during 1980.

MINING HEALTH AND SAFETY ENFORCEMENT PROGRAM

The rate of coal mine development activity during 1980 increased slightly over 1979. The production of coal also increased during the same time period. The demand for steam coal resulted in the increased mining activity and production. The present trend presents a positive future for mining in Virginia. It would appear that the present activities in regard to new mine development would mean more employment in the mining industry and more production for the Commonwealth of Virginia for the next few years. The metal and nonmetallic mining sector experienced adverse conditions in 1980. The market conditions for certain metals mined in Virginia such as zinc and lead were adverse. The market for aggregate brick, sand and other metal and nonmetallic minerals was not good due to the decrease in building and highway construction.

Virginia Mining Laws require that each mine have a complete inspection at least every ninety days. During an inspection the inspector shall inspect the surface plant, every working place in the mine, all active haulageways and travelways, entrances to abandoned workings, and accessible old workings, at least one entry of each intake and return airway in its entirety, escapeways and other places where men work or travel or where dangerous conditions may exist, electrical installations and equipment, haulage facilities, first aid equipment, ventilation facilities, communication installations, roof and rib conditions and roof support practices, blasting practices, haulage practices and equipment pertaining to the health and safety of the employees. The inspector must check the quantity and direction of air and make checks for gas and oxygen deficiency in each place. He must then complete a certificate of inspection showing the condition of the mine, any violations of the mining laws and actions taken to correct the violations. To accomplish the above inspection activities requires approximately four hours at a small surface mining operation, and as long as seven full weeks at an underground shaft mine liberating millions of cubic feet of methane in any normal twenty-four hour period. A summary of mine health and safety inspection activities for 1980 is as follows:

Underground Coal Mine Tipple	1,246
Underground Coal Mine Truck	2,919
Surface Coal Mine Strip	602
Surface Coal Mine Auger	74
Refuse Pile	45
Open Pit Inspections	1,059
Metal and Nonmetallic (Underground)	43
Investigations	242
Total	6,230

MINER EDUCATION AND TRAINING PROGRAM

The Division training program during 1980 consisted of two full-time field electrical instructors and three full-time field mine safety instructors. The instructors teach courses in mine electricity, maintenance and repair safety, mine foremanship, first aid, mine emergency and mine rescue training, and other areas of mine health and safety instruction. In addition, each field inspector is required to devote at least twenty-five percent of his underground inspection time to direct contacts with mine personnel relevant to mine safety and safe working practices.

Annually a safety day program is conducted in Virginia. This program is an effort to encourage the equipping and training of mine rescue and first aid teams to be prepared to react to mine fires and explosions. The 1980 contest was held during August at Blacksburg, Virginia, at Virginia Polytechnic Institute and State University. Forty-two teams from four states participated in the contest. In addition, during 1980, Division personnel participated in and supported the Virginia Safety Association, Mine Inspectors' Institute of America and National Mine Rescue Association. Rescue equipment is maintained for training functions. The activities of the miner education and training program are funded (80%) through Federal Grant GO 122043.

In addition to Division activities in miner training, three regional community colleges conduct training programs contractually through the Division's grant program. The programs developed by these schools have provided much needed assistance in meeting the training needs of Virginia's mining industry, especially the smaller, independent operator.

A summary of miner education and training activities conducted during 1980 by Division personnel is as follows:

Mine Foremanship	967
First Aid	236
40-Hour Advanced First Aid	121
Underground Shot Firer's	366
Electrical Training - Underground and Surface	910
Electrical Retraining - Underground and Surface	58
Care and Use of Flame Safety Light and Methane Detector	467
Mine Rescue Training	22
Surface Metal and Nonmetallic Training	30
Surface Blasters	53
New Miners Training For Open Pit	26
Supervisors Safety Seminar for Metal and Nonmetallic	117
Total Trained	3,373

The Board of Mine Examiners is a function of the Division. The Board consists of six appointed members and the Chief. One member is an underground coal miner, one member is a surface coal miner, one member is a miner working in the mining of minerals other than coal, one member is an operator engaged in the operation of surface coal mining, one member is an operator engaged in an underground coal mine, one member is an operator who is engaged in the operation of a noncoal mine in the State. Also, the Chief Mine Inspector serves as Chairman of the Board and one secretary in the Division serves as secretary to the Board. The Board establishes miner training and certification standards. During 1980 the Board held five regular meetings. The Board administers examinations for various classifications of miner certification at the Big Stone Gap and Vansant Offices of the Division. The Board examined or re-examined a total of 1,692 persons during 1980. The following certificates were issued by the Board during 1980:

First Class Mine Foreman	379
Surface Coal Mine Foreman	67
Surface, Metal and Nonmetallic Foreman	80
Underground Mine Foreman, Metal and Nonmetallic	4
Electrical Underground and Surface	341
Fire Boss	6
Hoisting Engineer	9
Surface Certified Blasters	92
Mine Inspectors	9

Preparation Plant Foreman	68
Dock Foreman	2
Underground Shot Firer	266
First Class Shaft Slope Foreman	7
Total Number of Certificates Issued	1,330

In addition, the Board issued the following:

Approved Competent Persons Cards and Permits:

Underground Mine Foreman	34
Preparation Plant Foreman	1
Surface Coal Mine Foreman	2
Surface Foreman, Metal and Nonmetallic	5
Mine Foreman Underground, Metal and Nonmetallic	1
Total	43

MOUNTAIN EMPIRE COMMUNITY COLLEGE

Mountain Empire Community College would like to take this opportunity to respectfully submit the annual report of completed training as a subcontractor to the Virginia Division of Mines and Quarries for the period January 1, 1980 to December 31, 1980.

The Mining Program has become fully operational since July, 1977. Participation and support for the program from mine and quarry operators, as well as the miners themselves, has been excellent.

Mountain Empire Community College is well equipped to handle the steadily increasing demand for miner training. We now have one full-time retraining instructor, with three additional mining instructors, who are fully certified in all phases of mine safety.

Our retraining program is fully publicized quarterly to all active mines reminding them of the services we have to offer, with a follow-up visit to the mine site by our retraining instructor.

Our retraining program is available to the miners upon request, at any location, day or night, week-day or week-ends at no cost.

Mountain Empire Community College continues to work very closely with the Virginia Division of Mines and Quarries, Southwest Virginia Community College and the Mining Enforcement and Safety Administration.

Following is a breakdown of the classes and the number of miners attending in each category from January 1, 1980 to December 31, 1980:

First Aid Methods	1,942
Principles of Mine Rescue	1,235
Use of Self-Rescue	1,942
Coal Mine Health and Safety Act, 1977, Underground	1,235
Coal Mine Health and Safety Act, 1977, Surface	698
Coal Mine Ventilation	407
Roof and Rib Control	1,235
Electrical Retraining	60
Methane Measurement and Oxygen Deficiency Testing	1,235
Emergency Medical Technicians	130

Statutory Rights of Miners	1,942
New Miner Training	250
Health and Safety Instructor Training	30

Mountain Empire Community College is grateful for the opportunity to serve the mining industry in its educational needs. We would like to express our appreciation to the Virginia Division of Mines and Quarries for giving us the opportunity to do so, and for their leadership and support.

SOUTHWEST VIRGINIA COMMUNITY COLLEGE

Southwest Virginia Community College would like to respectfully submit the annual report of completed training as a sub-contractor (GO 122043) to the Virginia Division of Mines and Quarries for the period of January 1, 1980 through December 31, 1980.

Funding obtained under this subcontract has enabled Southwest Virginia Community College to extend meaningful health and safety training to coal operators and metal and nonmetal operations. These services have been made available to the miners upon request, at any location, day or night, week-day or week-ends at no cost to the operator. The project currently is staffed with a coordinator, two health and safety instructors, an emergency medical technician/first aid instructor and a secretary. In addition to these full-time personnel, various "qualified" part-time instructors are used to meet the increasing demand for week-end and evening classes.

This year the project has experienced significant growth in 40-Hour New Miner Training and Annual Refresher Training. The coal companies in our service region have steadily grown dependent on the services that Southwest Virginia Community College has and will continue to provide.

Southwest Virginia Community College welcomes the opportunity to serve an industry so vital to our area. We appreciate the support of the Virginia Division of Mines and Quarries in this joint effort to meet the industry's training needs.

Courses conducted by Miner Training Personnel are as follows:

Mandatory Training

Course	Persons Trained	Minimum Contact Hours of Training	Minimum Man Hours
New Miner Training - Underground	549	40	21,960
New Miner Training - Surface	51	24	1,224
Annual Retraining	948	8	7,584
Electrical Recertification	42	10	420
Total	1,590		31,188

Certification Classes

Course	Persons Trained	Minimum Contact Hours of Training	Minimum Man Hours
Underground Mine Foreman	197	60	11,820
Surface Mine Foreman	12	20	240
Preparation Plant Foreman	17	20	340
Shot Firer	25	20	500
Electrical Certification	166	88	14,608
Maintenance Foreman	12	30	360
Chief Electrician	12	30	360
Total	441		28,228

Emergency Medical Technician/First Aid

Course	Persons Trained	Minimum Contact Hours of Training	Minimum Man Hours
First Aid	36	30	1,080
Emergency Medical Technician - Basic	218	80	17,440
Emergency Medical Technician - Refresher	117	32	3,744
CPR - Refresher	72	10	720
Total	443		22,984
Grand Total	2,474		82,400

VIRGINIA WESTERN COMMUNITY COLLEGE

Virginia Western Community College, in cooperation with the Division of Mines and Quarries, Department of Labor and Industry, has conducted a number of training activities. The following activities have been completed from the winter of 1980 to the present.

	Classes	Students
Winter, 1980 - New Miner Training	4	54
- Refresher Training	10	172
Spring, 1980 - New Miner Training	1	7
- Refresher Training	12	160
Summer, 1980 - New Miner Training	1	16
- Refresher Training	21	366
Fall, 1980 - New Miner Training	0	0
- Refresher Training	7	57
Sub-Totals - New Miner Training	6	77
- Refresher Training	50	755
Totals	56	832

The College also took part in several training activities provided by the Federal MSHA Office. Instructors were also provided with additional first aid training and mine visitations under the program.

VIRGINIA OIL AND GAS PRODUCTION, EXPLORATION AND DEVELOPMENT

1980
SUMMARY
NATURAL GAS PRODUCTION

Natural gas production in Virginia for 1980 totaled 7,812,402 Mcf from 258 wells of ten companies. This represented a decrease of 731,408 Mcf or eight percent below the previous year's total production.

The 1980 natural gas production for each county is shown in the following table:

Table 1

County	Producing Wells	Volume Produced (Mcf)
Buchanan	123	2,804,921
Dickenson	106	4,025,704
Rockingham	2	251,712
Russell	1	28,680
Tazewell	20	501,721
Wise	6	199,664
TOTALS	258	7,812,402*

*During the third quarter of 1980 there was a surplus of natural gas on the market. Wells in Buchanan County and parts of Dickenson and Tazewell Counties were shut-in.

The 1980 natural gas production for each company is shown in the following table:

Table 2

Company	Producing Wells	Volume Produced (Mcf)
Ashland Exploration, Inc.	36	448,232
Cabot Corporation	1	24,281
Clinchfield Coal Company	1	28,680
Columbia Gas Transmission Corporation	116	3,234,173
Consol-Ray Resources	14	359,316
W. E. Elliott	1	9,817
Penn-Virginia Resources Corporation	2	3,288
Philadelphia Oil Company	79	3,410,884*
P & S Oil & Gas Corporation	6	42,019
Scott Enterprises	2	251,712
TOTALS	258	7,812,402

*Philadelphia Oil Company had the largest production in 1980 with 79 wells producing a total of 3,410,884 Mcf, which was delivered to the line of Kentucky-West Virginia Gas Company (Table 9).

Columbia Gas Transmission Corporation had the second largest production during 1980 with 116 wells producing into the company pipeline system. Additionally, Columbia purchased natural gas produced from 14 wells of Consol-Ray, 1 well of W. E. Elliott, and 2 wells of Scott Enterprises for a total of 3,855,018 Mcf delivered to its pipeline from 133 wells during the year (Table 9).

Consolidated Gas Supply Corporation purchased gas produced from 36 wells of Ashland Exploration, Inc., 6 wells of P & S Oil and Gas Corporation, and 1 well of Cabot Corporation for a total of 514,532 Mcf delivered to its pipeline from 43 wells during the year (Table 9).

Clinchfield Coal Company produced 28,680 Mcf from 1 well in Russell County and Penn-Virginia Resources Corporation produced 3,288 Mcf from 2 wells in Wise County all for local use.

CRUDE OIL PRODUCTION

Crude oil production continued to increase in 1980 with a total of 9,513 barrels produced from 8 wells (Table 11). This represented an increase of 5,855 barrels or 160 percent over the previous year's production.

Crude oil production in the Rose Hill Field amounted to 6,070 barrels from 4 wells of Robert F. Spear, 3,851 barrels from 1 well operated by Witt Drilling Company, and 1,156 barrels from 1 well of Pride Oil Company.

Crude oil production in the Ben Hur Field amounted to 3,443. One hundred eighty-one barrels were produced from 1 well of Robert F. Spear and 3,262 barrels were produced from 1 well operated by Mountain Empire Gas and Oil Corporation.

The average price paid by the refineries for Virginia crude oil was $37.87.

EXPLORATION AND DEVELOPMENT

SUMMARY

Drilling activity in Virginia increased slightly from the previous year's total by 1 with a total of 25 new wells drilled and completed and 1 well deepened. The new well total of 25 represents an increase of one percent over the previous year's total of 24.

The total footage drilled in Virginia amounted to 99,401 feet, including 753 feet deeper drilled footage in one old well (Table 12). This total represents a decrease of 4,622 feet or 4 percent under the previous year's total. The average footage drilled for the 22 development wells was 4,023 feet and 3,380 for the 3 exploratory wells.

Of the 25 new wells drilled in 1980, 20 were completed as producers and 5 were dry holes. Of the 5 dry holes, one was an oil well and 4 were gas wells. The above figures represent a success ratio of 80 percent. The 1 OWDD was completed as a producer in the deeper zones of the gas fields. Exploratory drilling was not successful during 1980 with 3 of 3 being dry holes, while development drilling had a success ratio of 90 cercent with 20 of 22 wells completed as producers.

The counties of Buchanan, Dickenson, Lee, Rockingham, Tazewell and Wise experienced some drilling activity in 1980. The following chart shows the breakdown of the drilling activity by county.

Table 3

County	Well Classification			Total
	Development	Exploratory	OWDD	
Buchanan	4	0	0	4
Dickenson	7	0	1	8
Lee	4	1	0	5
Rockingham	3	1	0	4
Tazewell	0	1	0	1
Wise	4	0	0	4
Totals	22	3	1	26

NATURAL GAS EXPLORATION AND DEVELOPMENT

In Buchanan County, Columbia Gas Transmission drilled 1 new well in 1980 for a total foctage of 3,656 feet. Ashland Exploration, Inc. drilled 1 well to a total depth of 5,078 feet. Both were development wells and completed as producers. Texas International Petroleum continued their drilling program in 1980 with the drilling of two new developments for a total footage of 8,455 feet, but both were completed as dry holes.

In Dickenson County, Philadelphia Oil Company drilled 6 new development wells in 1980 for a total footage of 27,993 and an additional old well was deepened for a total footage of 753 feet. All of these wells were completed as producers. W. E. Elliott completed 1 well as a producer with footage drilled of 3,638 feet.

In Rockingham County, Merrill Natural Resources drilled 3 development wells and 1 new field wildcat well with a total footage of 14,726. The formation at T. D. in the wells was the Oriskany Sandstone. Of the development wells two were completed as producers. One development well and the exploratory well were dry holes.

In Tazewell County, Consolidated Gas Supply Corporation drilled a new field wildcat to a total depth of 4,640 feet. The well which T. D. in the Devonian Shale was a dry hole.

In Wise County, Philadelphia Oil Company continued expansion of the Nora Field from Dickenson County with the drilling of 4 development wells for a total footage of 21,493. All four wells were completed as producers.

The gas wells drilled in 1980 were completed with production from the Mississippian Maxon, Greenbrier Limestone (Big Lime), Berea Sands and Devonian Shales, and the lower Devonian Oriskany Sandstone.

CRUDE OIL EXPLORATION AND DEVELOPMENT

The only oil production in 1980 came from the oil fields of Lee County, the Ben Hur Field and the Rose Hill Field.

There was no drilling in the Ben Hur Field in 1980.

In the Rose Hill Field a total of 5 wells was drilled, 4 development and 1 exploratory, for a total footage of 8,969 feet. The 4 development wells were completed as producers, while the new pool wildcat was abandoned as a water well.

The oil wells that were drilled in 1980 were completed in the Silurian Clinch Sandstone and the Ordovician Trenton Limestone formations.

PIPELINE CONSTRUCTION AND OTHER RELATED ACTIVITIES

Construction continued on natural gas pipelines during 1980 in four counties, Buchanan, Dickenson and the new counties of Rockingham and Wise. Pipeline was laid in the Haysi and Keen Mountain Fields of Buchanan, the Nora Field of Dickenson County and the Bergton Field of Rockingham County.

In Buchanan County, Ashland Exploration, Inc. completed construction on 4,421 feet of gatherine lines in the Keen Mountain Field while Columbia Gas completed construction on 9,437 feet of new line and 3,900 feet of relocated line in the Haysi Field, tying in 2 new wells.

In Dickenson and Wise Counties, Berea Gathering Company completed construction on 26,873 feet of new line in the Nora Field with 4 new wells in Wise County tied in. W. E. Elliott laid 4,000 feet to connect 1 well to Columbia's system.

In Rockingham County, Scott Enterprises completed approximately 18,000 feet to tie in 2 old wells.

There was a tremendous increase of geophysical activity in Virginia during 1980 as seismic crews continued to work throughout the 37 counties in the overthrust belt.

Island Creek continued their methane degasification project with the drilling of 10 vertical ventilation holes.

Leasing for oil and gas acreage continued to increase during 1980 as the total acreage under lease increased by 1,026,405 acres over that of 1979 (Table 12). Leasing activity spread from as far southwest as Lee County to the upper northwestern county of Frederick, the majority of which is in the overthrust belt. Companies that are leasing actively are Amoco, Exxon, Chevron, Union Texas Petroleum, Sunmark Exploration, and Gulf and Arco.

PRODUCTION AND DRILLING ACTIVITY BY COUNTY

BUCHANAN COUNTY

Table 4

Company	Producing Wells	Volume Produced (Mcf)
Ashland Exploration, Inc.	36	448,232
Cabot Corporation	1	24,281
Columbia Gas Transmission Corporation	80	2,290,389
P & S Oil and Gas Corporation	6	42,019
Totals	123	2,804,921

Columbia Gas produced 2,290,389 Mcf of gas from the county into its pipeline in 1980. The remaining 514,532 Mcf produced by Ashland, Cabot, and P & S in the county were delivered to the line of Consolidated Gas Supply Corporation.

Drilling activity in the county decreased from 1979 with only 4 new wells drilled for a total footage of 17,189 feet. Of the 4 development wells 2 were completed as producers and 2 were dry holes. Both Columbia and Ashland drilled 1 development well each with both producing gas from the Berea. Texas International Petroleum drilled two dry holes in the South Grundy District of Buchanan County.

No new wells were tied in during 1980.

DICKENSON COUNTY

A total of 4,025,704 Mcf of gas was produced in Dickenson County during 1980 by 3 companies as shown below:

Table 5

Company	Producing Wells	Volume Produced (Mcf)
Columbia Gas Transmission Corporation	30	801,379
W. E. Elliott	1	9,817
Philadelphia Oil Company	75	3,214,508
Totals	106	4,025,704

The 3,214,508 Mcf produced by Philadelphia Oil Company was delivered to Kentucky-West Virginia Gas Company. The remaining 811,196 Mcf produced by Columbia and W. E. Elliott were delivered to Columbia's pipeline system.

Drilling activity in the county remained the same in 1980 with 7 new development wells and 1 old well deepened for a total footage of 32,384 feet. Six of the development wells and the one OWDD were drilled by Philadelphia Oil Company in its continuation of its Nora Fieid development program. W. E. Elliott drilled the remaining development well. All of the wells were completed as gas wells with production primarily from the Berea and Big Lime formations.

Only 1 well was tied in during 1980. W. E. Elliott tied the #2 well into Columbia Gas system's pipeline.

LEE COUNTY

Production of crude oil in the Ben Hur and Rose Hill Fields of Lee County increased in 1980 with a total of 9,513 barrels produced from 8 wells. Five of the wells were operated by Robert F. Spear, with 4 in the Rose Hill Field and 1 in the Ben Hur Field for a production of 1,244 barrels. One well operated by Witt Drilling Company produced 3,851 barrels and 1 well operated by Pride Oil Company produced 1,156 barrels. In the Ben Hur Field one well operated by Mountain Empire Gas and Oil Corporation produced 3,262 barrels.

During 1980 a total of 5 wells was drilled in Lee County, 4 development and 1 new pool wildcat all in the Rose Hill Field. Robert F. Spear drilled one development well and one new pool wildcat. Witt Drilling Company drilled 1 well, Pride Oil Company drilled 1 well, and Longview Oil Company drilled 1 well. All 4 development wells were completed as producers with the new pool wildcat abandoned as a water well.

Early indications are that 1981 will see a large increase in drilling both exploratory and development by several large companies.

RUSSELL COUNTY

Natural gas production continued in Russell County during 1980 as 28,680 Mcf were produced from one well by Clinchfield Coal Company for local use. Russell County will continue to be a focal area for drilling in the future.

ROCKINGHAM COUNTY

Rockingham County experienced drilling activity during 1980 as Merrill Natural Resources, Inc. drilled and completed 4 wells. Three wells were development and one well was a new field wildcat. The 3 development wells were completed as producers in the Oriskany Sandstone while the new field wildcat was abandoned as a dry hole. Merrill Natural Resources also put in production one old well. These wells marked the reopening of the Bergton Field which was first drilled in the early part of the 1950's.

Scott Enterprises put in production 2 old wells in the Bergton Field with a total production of 251,712 Mcf in the last quarter of 1980.

SCOTT COUNTY AND WASHINGTON COUNTY

There was drilling activity in the old Early Grove Gas Field by Early Grove Gas Company during 1980. However, at this writing the 4 initial wells in the project were not complete, but do show potential production being re-established in the old field which was first drilled in 1931.

Other companies have indicated drilling projections will begin in 1981.

TAZEWELL COUNTY

A total of 501,721 Mcf of gas was produced in Tazewell County during 1980 by two companies as shown below.

Table 6

Company	Producing Wells	Volume Produced (Mcf)
Columbia Gas Transmission Corporation	6	142,405
Consol-Ray Resources	14	359,316
Totals	20	501,721

The total amount of gas produced in the county in 1980 was delivered to the lines of Columbia Gas Transmission Corporation.

During 1980 Consolidated Gas Supply Corporation drilled a new field wildcat to a total depth of 4,640 feet. The formation at T. D. was the Devonian Shales. The hole was abandoned as a dry hole.

WISE COUNTY

A total of 199,664 Mcf of gas was produced in Wise County during 1980 by two companies as shown below.

Table 7

Company	Producing Wells	Volume Produced (Mcf)
Penn-Virginia Resources	2	3,288
Philadelphia Oil Company	4	196,376
Totals	6	199,664

Penn-Virginia Resources produced 3,288 Mcf of gas from two wells for local use in Wise County during 1980.

Philadelphia Oil Company drilled 4 new development wells in the county during the year as it continued its expansion and development of the Nora Field into Wise County. All 4 wells were completed with production from the Maxon, Big Lime, and Berea formations. In addition, Berea Gathering system tied 4 wells into the pipeline system which delivered 196,376 Mcf of gas to the Kentucky-West Virginia pipeline system.

Beginning during 1981, Wise Oil and Gas Exploration will begin its proposed development project on 132,000 acres in Wise County. A preliminary plan calls for an extensive workover and evaluation program for existing wells in the area, as well as the drilling of 8 new Devonian wells.

SUMMARY

In conclusion, although production and drilling figures indicated a slight decrease in activity from 1979, it does not indicate accurately the development that occurred. During the third quarter of 1980 there was a surplus of natural gas in the market place thus the reduced production. Also the lack of availability of a pipeline in the overthrust belt reduces the urgence by which wells are completed.

During 1981 the state will experience a great deal of drilling activity in the overthrust belt. Both Amoco and Atlantic-Richfield have projected wells in the early part of 1981 in areas which have not been drilled. With these events there will be a flurry of activity in the overthrust area and in general it will be a most successful year for the oil and gas industry in the Commonwealth of Virginia.

TABLE 8

VIRGINIA NATURAL GAS PRODUCTION - 1980

(Mcf)

Quarter	Buchanan County	Dickenson County	Rockingham County	Russell County	Tazewell County	Wise County	State Total
First	962,996	1,162,139	0	7,080	175,295	1,946	2,309,456
Second	854,934	1,048,865	0	7,320	141,946	269	2,053,334
Third	449,131	929,237	194,898	7,080	9,988	39,523	1,629,857 *
Fourth	537,860	885,463	56,814	7,200	174,492	157,926	1,819,755
TOTALS	2,804,921	4,025,704	251,712	28,680	501,721	199,664	7,812,402

*During the third quarter of 1980, there was a surplus of natural gas on the market. Wells in Buchanan and parts of Dickenson and Tazewell Counties were shut-in.

TABLE 9

NATURAL GAS DELIVERY TO PIPELINES - 1980

(Mcf)

Quarter	Columbia Gas Transmission Corporation	Consolidated Gas Supply Corporation	Kentucky - West Virginia Gas Company	Total Gas To Pipelines
First	1,272,838	130,729	896,863	2,300,430
Second	1,104,692	123,023	818,030	2,045,745
Third	678,087	130,182	814,508	1,622,777
Fourth	799,401	130,598	881,483	1,811,482
TOTALS	3,855,018	514,532	3,410,884	7,780,434
			Local use in Russell County	28,680
			Local use in Wise County	3,288
				7,812,402

TABLE 10

ESTIMATED REMAINING NATURAL GAS RESERVES IN VIRGINIA

AS OF DECEMBER 31, 1980

County	Producing Wells		Shut-In Wells		Total Wells	Total State Remaining Reserves (Mcf)
	Number of Wells	Remaining Reserves (Mcf)	Number of Wells	Remaining Reserves (Mcf)		
Buchanan	115	29,035,213	16	5,021,000	131	34,056,213
Dickenson	106	52,725,099	25	14,435,300	131	67,160,399
Rockingham	2	748,288	4	1,000,000	6	1,748,288
Russell	1	448,580	1	150,000	2	598,580
Scott and Washington	0	0	4	650,000	4	650,000
Tazewell	20	5,733,916	0	0	20	5,733,916
Wise	6	4,212,213	19	4,965,600	25	9,177,813
TOTALS	250	92,903,309	69	26,221,900	319	119,125,209

TABLE 11

VIRGINIA CRUDE OIL PRODUCTION - 1980

(Barrels)

Quarter	Ben Hur Field (Lee County)	Rose Hill Field (Lee County)	Total State
First	717	253	970
Second	1,069	2,087	3,156
Third	920	2,427	3,347
Fourth	737	1,303	2,040
TOTALS	3,443	6,070	9,513

TABLE 12

FOOTAGE DRILLED - 1980

County	Development Footage	Exploration Footage	Total Footage
Buchanan	17,189	0	17,189
Dickenson	32,384 *	0	32,384
Lee	7,630	1,339	8,969
Rockingham	10,564	4,162	14,726
Tazewell		4,640	4,640
Wise	21,493	0	21,493
TOTALS	89,260	10,141	99,401

*Includes 753' Deeper Drilled Footage

TABLE 13

ACREAGE UNDER LEASE FOR OIL AND GAS IN VIRGINIA

AS OF DECEMBER 31, 1980

Company	Undeveloped Acreage	Developed Acreage	Total Acreage
Amoco Production Company	512,099	0	512,099
American Natural Resources	100,000	0	100,000
Atlantic-Richfield	60,000	0	60,000
Ashland Exploration, Inc.	5,882	7,898	13,780
Cabot Corporation	559	329	888
Chevron, U.S.A.	168,595	0	168,595
Cities Services	6,290	0	6,290
Clinchfield Coal Company	8,999	600	9,599
Columbia Gas Transmission Corporation	282,307	38,942	321,249
Consolidated Gas Supply Corporation	16,960	0	16,960
Crab Run Gas Company	51,911	0	51,911
Early Grove Gas Company	4,388	0	4,388
W. E. Elliott, Trustee	192	200	392
Exxon, U.S.A.	275,181	0	275,181
Getty Oil Company	201	0	201
Gulf Oil Company	289,000	0	289,000
Highlander Resources	61,995	0	61,995
Home Petroleum	27,373	0	27,373
KOPCO	5,167	0	5,167
Merrill Natural Resources, Inc.	80,450	450	80,900
Mountain Empire Gas & Oil Corporation	7,922	78	8,000
Charles Maurer Oil Properties	3,000	0	3,000
OKMAR	2,308	0	2,308
Oxley Petroleum Corporation	1,732	0	1,732
Philadelphia Oil Company	188,115	30,690	218,805
Phillips Petroleum	85,659	0	85,659
Pride Oil Company	5,728	41	5,769
P & S Oil and Gas Corporation	0	1,708	1,708
Royal Resources	51,578	0	51,578
Southworth Enterprises	15,000	0	15,000
Sunmark Exploration Company	218,375	0	218,375
Texas International Petroleum Corporation	38,744	1,000	39,744
Texaco	376	0	376
Union Texas Petroleum Corporation	375,000	0	375,000
Virginia Oil and Gas Exploration, Inc.	5,000	0	5,000
Yankee Oil and Gas Corporation	15,128	0	15,128
TOTALS	2,971,214	81,936	3,053,150

COAL FACTS, 1980

A banner year for Virginia coal production was registered in 1980 as an all-time record of 41,008,884 tons of coal was mined.

Leading the way once again, Buchanan County accounted for 17.7 million tons or 43 percent of Virginia's coal production, while the second spot was taken again by Wise County with 12.5 million tons or 30 percent. Filling in the gaps were Dickenson, 5.9 million tons; Tazewell, 2.2 million tons; Russell, 1.5 million tons; Lee, 1.2 million tons; and Scott County, 0.01 million tons. With the exception of Scott County, which mined 13,589 tons less, production increased in all counties.

Taking a 48.6 percent share of production with 19.9 million tons, truck mines were still the highest producing operations, while tipple mines provided 12.4 million tons or 30.2 percent of coal mined in Virginia. Also increasing in output were strip mines which accounted for 8.4 million tons and a 20.4 percent share of production. Auger output fell 24.6 percent as these types of operations mined 0.3 million tons of coal.

A total of 867 mines operated in 1980, employing 591 office workers who earned $7.4 million. The 14,399 production workers comprised of 3,205 surface and 11,194 underground employees were paid a total of $316.0 million for a 10.1 percent increase. Capital expenditures were reduced 0.38 percent from last year to $93,856,378 for 1980.

The average number of days of operation per mine rose to 142. Fatalities, all individual cases, dropped to 12, causing the fatality rate to drop from 0.43 in 1979 to 0.29 fatalities per million tons of coal mined in 1980. Total cases (fatalities, lost workday cases, and cases without lost workdays) numbered 1,368 with 50,464 lost workdays which resulted in a frequency rate of 48.1 per million manhours of exposure and a severity rate for nonfatal cases of 1,775 per million manhours of exposure. Total cases reported in 1980 resulted in an incidence rate of 9.6 per 100 full-time workers. As more coal was mined, with the consequent additional hours worked, accidents were more frequent and more severe, yet fatalities were down.

METAL MINING AND QUARRYING

Among Virginia's 314 metal and nonmetal mines and quarries, production dropped off 7.0 million tons or 9.7 percent. Nine of the 12 categories reported reduced output with only mineral mining, not elsewhere classified; crushed and broken stone, not elsewhere classified; and gypsum showing gains. Lead and zinc ores reported the largest percentage decrease, down 94.6 percent while mineral mining, not elsewhere classified, produced the largest percentage gain, up 400.0 percent. The largest tonnage loss was turned in by crushed and broken granite, off by 2.7 million tons, but crushed and broken stone, not elsewhere classified, recorded the largest tonnage gain, nearly 1.3 million tons.

Total cases (fatalities, lost workday cases, and cases without lost workdays) numbered 97 in 1980. The injury frequency rate (10.1 injuries) and severity rate (125 days) per million manhours of exposure diminished this year, while 1,208 workdays were lost. An incidence rate of 2.0 per 100 full-time workers was computed for the total cases reported.

Christopher E. Loftus

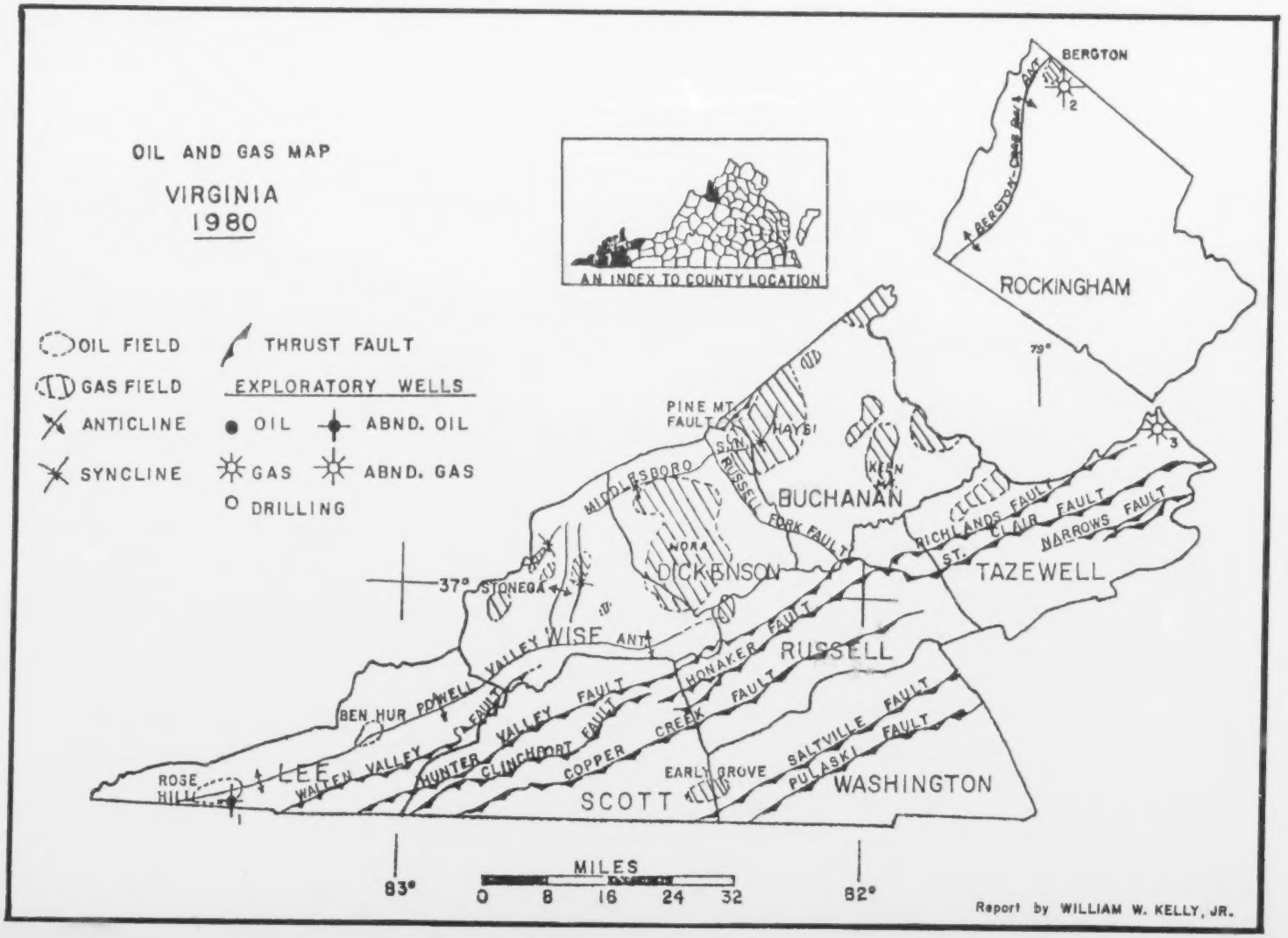

OIL AND GAS MAP
VIRGINIA
1980
AN INDEX TO COUNTY LOCATION
OIL FIELD
GAS FIELD
ANTICLINE
SYNCLINE
THRUST FAULT
EXPLORATORY WELLS
OIL
GAS
DRILLING
ABND. OIL
ABND. GAS
BERGTON
ROCKINGHAM
PINE MT. FAULT
HAYSI
MIDDLESBORO
RUSSELL FORK FAULT
BUCHANAN
KEEN MT.
RICHLANDS FAULT
ST. CLAIR FAULT
NARROWS FAULT
TAZEWELL
NORA
DICKENSON
37°
STONEGA
WISE ANT.
HONAKER FAULT
RUSSELL
BEN HUR
POWELL VALLEY FAULT
HUNTER VALLEY FAULT
CLINCHPORT FAULT
COPPER CREEK FAULT
EARLY GROVE
SALTVILLE FAULT
PULASKI FAULT
WASHINGTON
ROSE HILL
LEE
WALTEN VALLEY
SCOTT
83°
82°
79°
MILES
0 8 16 24 32
Report by WILLIAM W. KELLY, JR.

Table 14

SUMMARY OF VIRGINIA DRILLING – 1980

County	Map No.	Operator	Lease	Well Class	Well No.	Total Depth (Feet)	Formation At T. D.	Producing Formation	Initial Openflow (Mcf/BOPD)	Final Openflow (Mcf/BOPD)
Buchanan		Ashland Exploration, Inc.	Clinchfield Coal Co.	Development	088961	5,078	Devonian Shale	Maxon Berea	1,143 Mcf	1,143 Mcf
Buchanan		Columbia Gas Trans. Corp.	Elswick Est.	Development	20686	3,656	Devonian Shale	Berea	Show	1,780 Mcf
Buchanan		Texas Intern. Pet. Corp.	Island Creek Coal Co.	Development	I. C. #13	4,067	Devonian Shale			Dry Hole
Buchanan		Texas Intern. Pet. Corp.	Island Creek Coal Co.	Development	I. C. #24	4,388	Devonian Shale			Dry Hole
Dickenson		Philadelphia Oil Co.	Clinchfield Coal Co.	Development	P-87	4,648	Devonian Shale	Berea	4 Mcf	189 Mcf
Dickenson		Philadelphia Oil Co.	Clinchfield Coal Co.	Development	P-88	4,634	Devonian Shale	Berea	47 Mcf	984 Mcf
Dickenson		Philadelphia Oil Co.	Clinchfield Coal Co.	OWDD Development	P-96	5,455 D.D.753'	Devonian Shale	Big Lime Berea	112 Mcf	267 Mcf
Dickenson		Philadelphia Oil Co.	Steinman Development Co.	Development	P-99	4,471	Devonian Shale	Berea	66 Mcf	311 Mcf
Dickenson		Philadelphia Oil Co.	Clinchfield Coal Co.	Development	P-100	4,512	Devonian Shale	Berea	Show	337 Mcf
Dickenson		Philadelphia Oil Co.	Clinchfield Coal Co.	Development	P-101	4,465	Devonian Shale	Berea	0	539 Mcf
Dickenson		Philadelphia Oil Co.	Clinchfield Coal Co.	Development	P-113	5,263	Devonian Shale	Berea	0	103 Mcf
Dickenson		W. E. Elliott	N. D. Howard et al	Development	3	3,638	Devonian Shale	Big Lime Berea	Show	169 Mcf 84 Mcf

Lee		Spear Oil Co.	Ryland Ramsey Farm	Development	RR-5	1,885	Trenton Limestone	Trenton	5 BOPD	1 BOPD
Lee		Witt Drilling Co.	Elmer Ray Farm	Development	Elmer Ray #1	1,770	Trenton Limestone	Trenton	6 BOPD	70 BOPD
Lee		Pride Oil Company	Richard Wilson Farm	Development	PO-1	2,075	Egglestone Limestone	Clinch Trenton	30 BOPD	14 BOPD
Lee		Longview Oil Co.	Ike Bacon Farm	Development	Ike Bacon #3	1,900	Moccasin Limestone	Trenton	0 BOPD	3 BOPD
Lee	1	Spear Oil Co.	Max Parkey Farm	New Pool Wildcat	S-801	1,339	Trenton			Abandoned as a Water Well
Rockingham		Merrill Natural Resources, Inc.	Allen Fitzwater Farm	Development	Fitzwater #2	3,528	Oriskany	Oriskany	1,416 Mcf	2,477 Mcf
Rockingham		Merrill Natural Resources, Inc.	Allen Fitzwater Farm	Development	Fitzwater #3	3,596	Oriskany	Oriskany	2,402 Mcf	4,105 Mcf
Rockingham		Merrill Natural Resources, Inc.	Ada Moyers Farm	Development	MN-1	3,440	Oriskany	Oriskany	2,113 Mcf	750 Mcf
Rockingham	2	Merrill Natural Resources, Inc.	Floyd Fulks Farm	New Pool Wildcat	MN-4	4,162	Oriskany			Dry Hole
Tazewell	3	Consol. Gas Supply Corp.	Falls Mill Lake Farm	New Field Wildcat	12,642	4,640	Devonian Shale			Dry Hole
Wise		Philadelphia Oil Co.	Clinchfield Coal Co.	Development	P-102	5,475	Devonian Shale	Big Lime Berea	581 Mcf	581 Mcf
Wise		Philadelphia Oil Co.	Clinchfield Coal Co.	Development	P-103	5,325	Devonian Shale	Maxon Big Lime Berea	137 Mcf	852 Mcf 146 Mcf
Wise		Philadelphia Oil Co.	Clinchfield Coal Co.	Development	P-104	5,337	Devonian Shale	Big Lime Berea	0 Mcf	622 Mcf 298 Mcf
Wise		Philadelphia Oil Co.	Clinchfield Coal Co.	Development	P-105	5,356	Devonian Shale	Big Lime	2 Mcf	236 Mcf

SUMMARY OF UNDERGROUND COAL MINING BY TITLE*
1980

TYPE AND TITLE	TOTAL	TYPE AND TITLE	TOTAL
Tonnage (Underground Mines)	32,358,007	Production Workers	12,596
Title I	9,556,541	Surface	1,402
Tipple	120,420	Title I	374
Truck	9,436,121	Tipple	12
Title II	22,801,466	Truck	362
Tipple	12,284,456	Title II	1,028
Truck	10,517,010	Tipple	659
		Truck	369
Tons Mined By:			
Machine	11,391,623	Underground	11,194
Title I	7,105,740	Title I	2,383
Tipple	68,687	Tipple	18
Truck	7,037,053	Truck	2,365
Title II	4,285,883	Title II	8,811
Tipple	680,498	Tipple	5,833
Truck	3,605,385	Truck	2,978
Continuous Miner	19,163,890	Wages Paid Production Workers	$278,779,017
Title I	2,393,213	Title I	49,100,304
Tipple	51,733	Tipple	608,528
Truck	2,341,480	Truck	48,491,776
Title II	16,770,677	Title II	229,678,713
Tipple	9,859,052	Tipple	157,152,160
Truck	6,911,625	Truck	72,526,553
Hand	57,588	Number of Mines	547
Title I	57,588	Title I	383
Truck	57,588	Tipple	4
Longwall	1,744,906	Truck	379
Title II	1,744,906	Title II	164
Tipple	1,744,906	Tipple	58
		Truck	106

* Title I Mines averaging underground employment of 14 or less.
Title II Mines averaging underground employment of 15 or more.

SUMMARY OF COAL MINING IN VIRGINIA
1980

	Buchanan	Dickenson	Lee	Russell	Scott	Tazewell	Wise	Total
Tonnage	17,721,870	5,884,247	1,179,697	1,476,847	10,552	2,191,638	12,544,033	41,008,884
Tipple	4,922,586	1,917,380	443,241	912,403	–	1,090,887	3,118,379	12,404,876
Strip	1,892,152	1,032,664	195,673	231,971	–	154,973	4,866,162	8,373,595
Truck	10,808,464	2,923,680	463,857	325,508	10,552	945,046	4,476,024	19,953,131
Auger	98,668	10,523	76,926	6,965	–	732	83,468	277,282
Tons Mined By:								
Machine	9,511,804	2,472,967	479,239	559,054	10,552	891,111	6,117,773	20,042,500
Tipple	397,470	–	71,265	–	–	–	280,450	749,185
Strip	1,892,152	1,032,664	195,673	231,971	–	154,973	4,866,162	8,373,595
Truck	7,123,514	1,429,780	135,375	320,118	10,552	735,406	887,693	10,642,438
Auger	98,668	10,523	76,926	6,965	–	732	83,468	277,282
Continuous Miner	6,452,910	3,369,172	697,245	917,776	–	1,300,527	6,426,260	19,163,890
Tipple	2,822,318	1,875,272	371,976	912,403	–	1,090,887	2,837,929	9,910,785
Truck	3,630,592	1,493,900	325,269	5,373	–	209,640	3,588,331	9,253,105
Hand	54,358	–	3,213	17	–	–	–	57,588
Truck	54,358	–	3,213	17	–	–	–	57,588
Longwall	1,702,798	42,108	–	–	–	–	–	1,744,906
Tipple	1,702,798	42,108	–	–	–	–	–	1,744,906
Office Workers	246	79	28	42	1	41	154	591
Tipple	65	22	7	13	–	18	44	169
Strip	31	21	6	12	–	4	69	143
Truck	140	35	14	17	1	19	41	267
Auger	10	1	1	–	–	–	–	12
Salaries Paid Office Workers	$ 2,379,440	$ 900,986	$ 412,494	$ 783,867	$ 3,000	$ 599,140	$ 2,338,111	$ 7,417,038
Tipple	863,476	414,800	104,108	315,000	–	210,747	588,422	2,496,553
Strip	392,009	247,257	77,100	239,864	–	73,426	734,888	1,764,544
Truck	1,095,825	238,899	231,286	229,003	3,000	314,967	1,014,801	3,127,781
Auger	28,130	30	–	–	–	–	–	28,160

Production Workers	6,700	2,070	431	596	11	786	3,805	14,399
Surface	1,293	323	139	130	2	70	1,248	3,205
Tipple	380	51	14	15	–	14	197	671
Strip	435	159	74	87	–	37	946	1,738
Truck	447	110	31	25	2	18	98	731
Auger	31	3	20	3	–	1	7	65
Underground	5,407	1,747	292	466	9	716	2,557	11,194
Tipple	2,618	779	154	357	–	442	1,501	5,851
Truck	2,789	968	138	109	9	274	1,056	5,343
Wages Paid Production Workers	$148,733,439	$45,225,649	$8,358,499	$13,135,158	$185,475	$20,816,528	$79,553,752	$316,008,500
Tipple	78,321,691	19,219,226	3,520,386	8,963,095	–	13,084,495	34,651,795	157,760,688
Strip	8,990,162	3,576,743	1,455,332	1,644,478	–	1,073,740	19,716,814	36,457,269
Truck	61,057,334	22,408,869	3,119,531	2,489,160	185,475	6,657,562	25,100,398	121,018,329
Auger	364,252	20,811	263,250	38,425	–	731	84,745	772,214
Number of Mines	388	120	50	42	1	24	242	867
Tipple	20	12	2	4	–	3	21	62
Strip	68	24	16	13	–	4	147	272
Truck	281	82	24	22	1	16	59	485
Auger	19	2	8	3	–	1	15	48
Estimated Average Days Worked	154	152	121	110	240	171	125	142
Tipple	232	212	246	250	–	252	200	219
Strip	101	132	121	84	–	145	105	106
Truck	168	152	117	110	240	170	173	160
Auger	63	50	101	41	–	40	27	55
Tons of Coke Produced	484,000	–	–	–	–	–	–	484,000

Number of Injuries 1/	1,368	Number of Lost Workdays	50,464	Frequency Rate 2/	48.1	Severity Rate 3/	1,775	Number of Fatalities	12

1/ Fatal and nonfatal cases.
2/ Number of injuries per million man-hours of exposure.
3/ Number of lost workdays per million man-hours of exposure.

SUMMARY OF METAL MINING, MINING AND QUARRYING OF NONMETALLIC MINERALS, EXCEPT FUELS

1980

	Tonnage	Office Workers	Office Hours Worked	Salaries	Quarry and Metal Mine Employment	Plant Employment	Days Worked	Total Man-Hours	Wages	Capital Expenditures
Lead and Zinc Ores	26,591	44	93,498	$ 913,325	160	70	252	419,745	$ 3,792,978	$ 252,932
Dimension Stone	1,314,682	27	59,634	501,678	35	131	1,319	344,489	1,959,918	1,560,928
Crushed and Broken Limestone	20,570,635	320	653,122	5,096,203	695	925	16,829	3,425,726	20,652,014	6,049,816
Crushed and Broken Granite	18,279,450	100	241,202	1,575,842	262	405	7,139	1,645,896	10,491,878	18,461,553
Crushed and Broken Stone, nec	7,991,462	68	146,755	1,215,958	168	236	3,573	794,636	5,520,573	3,049,300
Construction Sand and Gravel	13,780,111	107	185,714	1,410,948	277	229	14,917	978,144	6,019,441	2,747,052
Industrial Sand	163,784	5	9,341	46,410	1	15	877	28,286	130,701	135,516
Clay and Related Minerals	1,656,732	105	221,238	1,811,967	65	788	5,580	1,647,649	8,335,164	2,574,269
Mineral Mining, nec	2,700	7	11,734	80,951	6	20	249	62,643	277,096	0
Gypsum	361,244	4	7,278	65,906	37	0	307	85,446	448,468	0
Talc, Soapstone, and Pyrophyllite	12,306	10	19,528	172,064	20	50	564	132,722	602,500	0
Miscellaneous Nonmetallic Minerals, nec	902,992	5	9,714	61,820	21	16	1,192	64,151	429,738	262,550
TOTAL	65,062,689	802	1,658,758	$12,953,072	1,747	2,885	52,798	9,629,533	$58,660,469	$35,093,916

NOTE: nec - Not elsewhere classified.

METAL MINING AND QUARRYING INJURY EXPERIENCE

1980

	Number Injuries 1/	Days Lost	Number Fatalities	Frequency Rate 2/	Severity Rate 3/
Lead and Zinc Ores	17	174	0	40.5	414
Dimension Stone	2	20	0	5.8	58
Crushed and Broken Limestone	52	582	0	15.2	170
Crushed and Broken Granite	6	72	2	3.6	44
Crushed and Broken Stone, nec	8	261	1	10.1	328
Construction Sand and Gravel	4	17	0	4.1	17
Clay and Related Minerals	8	82	0	4.8	50
TOTAL	97	1,208	3	10.1	125

1/ Includes fatalities.
2/ Number of injuries per million man-hours of exposure.
3/ Number of days lost per million man-hours of exposure.

NOTE: nec - Not elsewhere classified.

FATAL ACCIDENTS IN COAL MINES, VIRGINIA
1980

TOTAL	12
Age:	
20 to 30	6
31 to 40	2
41 to 50	4
Family Status:	
Married	9
Single	2
Divorced	1
Total Years Mining Experience:	
Up to one year	2
One year to ten years	6
Ten years and over	3
Unknown	1
Experience with Present Company:	
One month and not more than three months	7
Three months to two years	3
Two years to five years	1
Five years to fifteen years	1
Time of Accident:	
Morning	7
Afternoon	1
Night	4
Cause:	
Electrocution	1
Explosion	1
Machinery	4
Roof Fall	3
Haulage	2
Other	1
Occupation:	
Chief electrician	1
Foreman	2
Front end loader	1
General inside laborers	2
Roof bolter	1
Roof bolter - helper	1
Section foreman	1
Shotfirer	1
Shuttle car operators	2

PRODUCTION AND FATALITIES IN THE COAL MINES, VIRGINIA
1952 - 1980

Year	Fatal Accidents	Production (Short Tons)	Fatality Rate Per Million Tons
1952	21	20,833,626	1.01
1953	31	18,762,503	1.65
1954	23	15,187,142	1.51
1955	33	21 849,115	1.51
1956	35	26,004,732	1.34
1957	37	26,528,081	1.39
1958	30	25,030,954	1.20
1959	22	28,223,508	0.78
1960	22	26,706,285	0.82
1961	30	28,156,370	1.07
1962	22	29,469,945	0.75
1963	25	30,389,798	0.82
1964	22	31,773,217	0.69
1965	25	34,063,404	0.73
1966	30	35,572,928	0.84
1967	24	36,415,214	0.66
1968	12	36,865,703	0.32
1969	15	35,651,536	0.42
1970	27	34,974,724	0.77
1971	15	30,624,954	0.49
1972	15	33,995,841	0.44
1973	18	33,869,387	0.53
1974	15	34,283,753	0.44
1975	9	35,505,780	0.25
1976	16	39,995,546	0.40
1977	13	37,513,131	0.35
1978	17	32,004,341	0.53
1979	16	37,038,148	0.43
1980	12	41,008,884	0.29

COAL RESOURCES OF VIRGINIA 1/

NAME OF BED	SEAM NO.	RESERVES AS OF 1/1/51 2/	REMAINING RESERVES 1/1/81 3/	SULPHUR CONTENT
BUCHANAN COUNTY				
Cedar Grove	27- 1	3.80	1.15	*
Lower Cedar Grove	27- 2	2.27	0.82	*
Campbell Creek	27- 3	49.75	48.46	.66– .80
Clintwood	27- 4	92.78	61.73	.85–1.10
Eagle	27- 5	215.70	192.05	1.10–1.80
Blair	27- 6	61.68	31.97	.84–1.34
Dorchester	27- 7	105.33	94.08	.90–1.40
Hagy	27- 8	303.77	265.34	1.00–3.00
Splashdam	27- 9	708.50	648.99	.67– .83
Upper Banner	27-10	5.83	0.63	.52– .95
Lower Banner	27-11	286.43	280.18	.79– .90
Big Fork	27-12	9.53	9.46	.94–1.00
Kennedy	27-13	771.95	730.01	.96–1.10
Aily	27-14	42.29	42.23	.94–1.10
Raven	27-15	575.69	510.76	2.10–2.50
Jawbone	27-16	336.93	324.82	.47– .85
Tiller	27-17	77.44	67.48	.44– .67
Lower Seaboard	27-18	7.65	7.55	1.30–1.80
War Creek	27-19	2.96	2.89	*
Pocahontas No. 3	27-20	113.94	69.18	.40– .80
TOTAL		3,774.22	3,389.78	
DICKENSON COUNTY				
Kelly	51- 1	4.69	0.00	.89–1.02
Imboden	51- 2	4.38	2.19	.64–1.00
Clintwood	51- 3	79.04	65.95	.85–1.12
Eagle	51- 4	18.80	13.99	1.45–1.49
Blair	51- 5	14.39	13.37	.84–1.34
Lyons	51- 6	9.04	8.79	.70–2.90
Dorchester	51- 7	94.42	92.41	.87–1.49
Norton	51- 8	1.51	1.18	*
Hagy	51- 9	51.54	50.62	1.00–3.00
Splashdam	51-10	322.47	301.55	.76– .87
Upper Banner	51-11	325.43	288.01	.51– .95
Lower Banner	51-12	339.90	319.04	.65– .92
Kennedy	51-13	434.25	433.59	.70–1.98
Aily	51-14	8.26	8.25	.94–1.10
Raven	51-15	393.37	391.78	2.18–2.54
Jawbone	51-16	475.47	473.65	.71–2.12
Tiller	51-17	94.45	4.90	.44– .59
TOTAL		2,671.41	2,469.27	

NAME OF BED	SEAM NO.	RESERVES AS OF 1/1/51 2/	REMAINING RESERVES 1/1/81 3/	SULPHUR CONTENT
LEE COUNTY				
High Splint	105- 1	0.84	0.00	.67–1.41
Morris	105- 2	2.77	2.49	*
Pardee	105- 3	2.31	2.11	.75–1.51
Wax	105- 4	2.46	2.16	.76– .85
Gin Creek	105- 5	1.63	1.59	*
Phillips	105- 6	13.17	9.56	.72– .91
Low Splint	105- 7	21.41	20.15	1.02–1.23
Taggart	105- 8	46.59	38.40	.34–1.01
Taggart Marker	105- 9	32.89	28.49	.61– .79
Kirk	105-10	1.76	1.02	*
Harlan	105-11	117.67	111.84	.61–3.20
Upper St. Charles	105-12	6.68	6.60	*
Lower St. Charles	105-13	33.63	32.34	2.06–2.25
Pinhook	105-14	9.13	9.13	*
Kelly	105-15	15.98	15.95	.77– .98
Stone Creek	105-16	0.63	0.63	1.92–2.08
Imboden	105-17	55.48	53.96	.70– .96
Clintwood	105-18	84.66	84.35	1.69–1.79
Blair	105-19	9.24	9.14	.85–1.34
Lyons	105-20	5.77	5.73	*
Dorchester	105-21	2.01	1.63	.79–2.90
TOTAL		466.71	437.27	
RUSSELL COUNTY				
Dorchester	167- 1	0.08	0.08	.90–1.40
Splashdam	167- 2	8.58	8.19	.67– .83
Upper Banner	167- 3	16.00	11.81	.52– .95
Lower Banner	167- 4	45.87	42.15	.79– .90
Big Fork	167- 5	4.80	3.21	.94–1.10
Kennedy	167- 6	128.09	125.45	.96–1.10
Raven	167- 7	98.84	96.69	2.10–2.50
Jawbone	167- 8	249.47	240.78	.47– .85
Tiller	167- 9	154.56	128.04	.44– .67
Burton's Ford	167-10	13.01	12.96	.99–1.43
TOTAL		719.30	669.36	

COAL RESOURCES OF VIRGINIA 1/

NAME OF BED	SEAM NO.	RESERVES AS OF 1/1/51 2/	REMAINING RESERVES 1/1/81 3/	SULPHUR CONTENT
SCOTT COUNTY				
Jawbone	169- 1	0.48	0.48	.71–2.12
Cove Creek	169- 2	2.46	2.26	.85–1.80
Eagan	169- 3	7.32	7.24	.85– .94
Carter	169- 4	0.22	0.22	*
Tacus	169- 5	7.09	7.09	*
Starnes	169- 6	4.71	4.71	*
Burton's Ford	169- 7	82.29	82.27	.99–1.43
TOTAL		104.57	104.27	
TAZEWELL COUNTY				
Lower Banner	185- 1	0.34	0.32	.65– .92
Big Fork	185- 2	0.99	0.99	.94–1.10
Caldwell	185- 3	4.87	4.82	*
Kennedy	185- 4	9.24	8.78	0–1.98
Ally	185- 5	1.90	1.90	.94–1.10
Raven	185- 6	33.40	30.21	.57– .81
Jawbone	185- 7	73.74	72.32	.47– .85
Tiller	185- 8	44.73	42.56	.53– .67
Upper Seaboard	185- 9	35.52	34.62	.50– .71
Greasy Creek	185-10	12.86	12.86	*
Middle Seaboard	185-11	22.07	21.57	*
Lower Seaboard	185-12	74.38	67.47	1.10–1.70
Upper Horsepen	185-13	57.06	52.72	*
Middle Horsepen	185-14	32.86	30.67	*
"C"	185-15	18.11	18.00	*
War Creek	185-16	80.37	80.33	*
Lower Horsepen	185-17	21.40	20.90	*
Pocahontas No. 8	185-18	0.35	0.29	.35– .91
Pocahontas No. 7	185-19	7.11	7.02	*
Pocahontas No. 6	185-20	11.65	11.43	*
Pocahontas No. 5	185-21	42.20	40.79	*
Pocahontas No. 4	185-22	38.85	38.29	.35– .91
Pocahontas No. 3	185-23	84.36	83.68	.34– .68
TOTAL		708.36	682.54	

NAME OF BED	SEAM NO.	RESERVES AS OF 1/1/51 2/	REMAINING RESERVES 1/1/81 3/	SULPHUR CONTENT
WISE COUNTY				
High Splint	195- 1	28.15	19.91	.67–1.28
Morris	195- 2	28.74	26.44	*
Pardee	195- 3	74.19	63.33	.78–1.60
Phillips	195- 4	11.88	10.31	.72– .91
Low Splint	195- 5	99.59	95.72	1.02–1.23
Taggart	195- 6	121.29	82.10	.50– .65
Taggart Marker	195- 7	85.79	78.43	.75– .79
Upper Standiford	195- 8	70.34	64.97	*
Pinhook	195- 9	3.87	3.38	*
Kelly	195-10	149.17	130.87	.89–1.02
Imboden	195-11	186.38	142.54	.64–1.00
Rocky Ford	195-12	0.24	0.24	.75– .83
Addington	195-13	4.36	4.28	*
Clintwood	195-14	167.39	150.84	.85–1.10
Blair	195-15	157.02	147.51	.84–1.34
Lyons	195-16	132.34	126.35	.84–1.34
Dorchester	195-17	193.97	177.28	.79–2.93
Norton	195-18	170.19	161.41	1.36–1.63
Hagy	195-19	9.08	8.94	1.00–3.00
Splashdam	195-20	11.36	8.64	.76– .87
Upper Banner	195-21	94.10	83.05	.52– .73
Lower Banner	195-22	116.78	113.47	.83– .90
Kennedy	195-23	112.85	112.40	.83– .94
Raven	195-24	130.71	129.87	2.18–2.54
Jawbone	195-25	157.40	148.80	.71–2.12
Tiller	195-26	5.29	5.12	.85–1.80
Cove Creek	195-27	0.19	0.19	.85– .94
Burton's Ford	195-28	8.42	8.34	.99–1.43
Eagan	195-29	6.32	6.32	*
Starnes	195-30	2.71	2.70	*
Tacus	195-31	5.49	5.49	*
TOTAL		2,345.60	2,119.24	

1/ Reserves as of 1/1/51 were taken from Coal Resources of Virginia Geological Survey Circular 171.
2/ Reserves shown in this report include coal beds from fourteen inches to more than forty-two inches in thickness.
3/ In millions of short tons.
* This seam has not been mined extensively enough to justify an analysis.